



# FEDERAL REGISTER

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Title 3—

Proclamation 10581 of May 18, 2023

The President

National Hepatitis Testing Day, 2023

**By the President of the United States of America****A Proclamation**

Thousands of Americans die every year of viral hepatitis—infections of the liver that can be managed or cured if patients know they are infected and can get treatment. On National Hepatitis Testing Day, we urge Americans to get tested and recommit to ensuring that those who are diagnosed can receive lifesaving care.

Viral hepatitis is a hidden epidemic. For those with hepatitis C, which spreads through contact with infected blood and is the most common strain, it can be years between the time someone is infected and when they first present symptoms, leaving far too many unaware that they are sick. This can further spread the virus, delay treatment, and lead to serious liver disease—including cirrhosis, liver failure, liver cancer, and even death. Pregnant women with untreated hepatitis C can also pass the virus on to their newborns. It disproportionately affects Black Americans and Native Americans, who too often cannot access quality health care, and it is more common among those experiencing homelessness and those who are incarcerated as more than a third of people in a jail or prison can be positive at a given time. The good news is that we now have a cure for hepatitis C that is 95 percent effective—but its high cost, among other factors, has kept it from many of the more than 2 million Americans in need.

My new Budget includes a bold plan to change that this decade—ending hepatitis C as a public health threat by expanding testing, slashing the high cost of treatment, and promoting awareness of the risks and the cure. It draws on work that the Department of Veterans Affairs has done in treating more than 100,000 affected veterans since 2014. My plan would make testing quicker and simpler with more point-of-care diagnostic tests so patients can be tested and treated in a single visit, rather than having to return several times before determining their infection status. It would pioneer innovative approaches to treating hepatitis C, including a national antiviral subscription model, so more Americans can get affordable care and taxpayers can save billions of dollars through prevention and the reduced need for treatment of advanced liver diseases. My plan would also support grassroots public health groups; train more health care professionals; and expand mobile, telehealth, and community sites focused on hepatitis testing and care. And it would boost progress toward a hepatitis C vaccine.

We are also taking steps to prevent hepatitis B—the second most common strain of the virus among adults, which can lead to premature death in 15 to 25 percent of cases. We are fortunate to already have a hepatitis B vaccine; it has been widely recommended for children for over 30 years, and the Centers for Disease Control and Prevention now urges all adults under 60 to be screened and vaccinated too. This is especially important among Asian American, Native Hawaiian, and Pacific Islander communities, who account for almost 60 percent of chronic hepatitis B cases in this country.

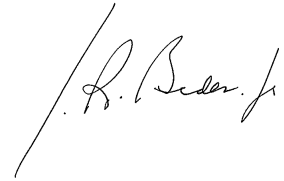
Working to beat hepatitis is something that all Americans can agree is important. It is within our power to save tens of thousands of lives and billions of dollars in health care costs, and by reducing liver cancer, these



steps will also bring us closer to meeting our moonshot goal of ending cancer as we know it, achieving one of the greatest public health victories of all time. Every American can do their part—ask your health care provider about getting tested for hepatitis B and C and about being vaccinated for hepatitis B if you have not yet done so. And ask the Congress to back our push to eliminate the threat of viral hepatitis from the United States for good.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim May 19, 2023, as National Hepatitis Testing Day. I encourage all Americans to join in activities that will increase awareness about viral hepatitis and what we can do to prevent and treat it.

IN WITNESS WHEREOF, I have hereunto set my hand this eighteenth day of May, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-seventh.



# Rules and Regulations

Federal Register

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## DEPARTMENT OF AGRICULTURE

### Rural Utilities Service

#### 7 CFR Part 1710

[Docket No. RUS-22-ELECTRIC-0057]

RIN 0572-AC60

#### Electric Program Coverage Ratios Clarification and Modifications

**AGENCY:** Rural Utilities Service, U.S. Department of Agriculture (USDA).

**ACTION:** Final rule; confirmation.

**SUMMARY:** The Rural Utilities Service (RUS or Agency), an agency in the United States Department of Agriculture (USDA) Rural Development Mission area, published a final rule with comment in the *Federal Register* on March 1, 2023, to modify its coverage ratio requirements, add an additional set of ratios, update definitions, and add definitions. Through this action, RUS is confirming the final rule as it was published as no public comments were received.

**DATES:** The final rule published March 1, 2023, at 88 FR 12806, is confirmed as of May 30, 2023.

**FOR FURTHER INFORMATION CONTACT:** Mark Bartholomew, Rural Utilities Service Electric Program, Rural Development, United States Department of Agriculture, 1400 Independence Avenue SW, STOP 1560, Washington, DC 20250; 704-544-4612, [mark.bartholomew@usda.gov](mailto:mark.bartholomew@usda.gov).

**SUPPLEMENTARY INFORMATION:** Rural Development is a mission area within the U.S. Department of Agriculture (USDA) comprising the Rural Utilities Service, Rural Housing Service, and Rural Business-Cooperative Service. Rural Development's mission is to increase economic opportunity and improve the quality of life for all rural Americans. Rural Development meets its mission by providing loans, loan guarantees, grants, and technical assistance through numerous programs

aimed at creating and improving housing, business, and infrastructure throughout rural America.

The RUS Electric Program provides funding to maintain, expand, upgrade, and modernize America's rural electric infrastructure. The loans and loan guarantees finance the construction or improvement of electric distribution, transmission, and generation facilities in rural areas. In an effort by the RUS Electric Program to administer its program in an efficient and effective manner while improving its customer service and experience, and in response to requests from the RUS Electric Program borrowers, the Electric Program undertook a systematic review of regulations and procedures in place to administer its program. In addition to this final rule, the Electric Program has completed two other streamlining efforts to date.

The final rule that published March 1, 2023 (88 FR 12806), included a 60-day comment period that ended on May 1, 2023. The Agency has not received any comments on the final rule.

With no comments on this rule, the Agency confirms the final rule without change.

**Andrew Berke.**

*Administrator, Rural Utilities Service.*

[FR Doc. 2023-10637 Filed 5-22-23; 8:45 am]

**BILLING CODE 3410-15-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 25

[Docket No. FAA-2021-0629; Special Conditions No. 25-803-SC]

#### Special Conditions: Dassault Aviation Model Falcon 6X Airplane; Flight Envelope Protection, Icing and Non-Icing Conditions; High-Incidence Protection

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final special conditions; request for comments.

**SUMMARY:** These special conditions are issued for the Dassault Aviation (Dassault) Model Falcon 6X airplane. This airplane will have novel or unusual design features associated with flight-envelope protections, in icing and

non-icing conditions, that use high-incidence protection to automatically advance throttles when the airplane angle of attack (AoA) reaches a predetermined value. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

**DATES:** This action is effective on Dassault on May 23, 2023. Send comments on or before July 7, 2023.

**ADDRESSES:** Send comments identified by Docket No. FAA-2021-0629 using any of the following methods:

- *Federal eRegulations Portal:* Go to <https://www.regulations.gov/> and follow the online instructions for sending your comments electronically.

- *Mail:* Send comments to Docket Operations, M-30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to Docket Operations at 202-493-2251.

*Privacy:* Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in title 14, Code of Federal Regulations (14 CFR) 11.35, the FAA will post all comments received without change to <https://www.regulations.gov/>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about these special conditions.

*Confidential Business Information:* Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to these special conditions contain commercial or financial information that is customarily treated

as private, that you actually treat as private, and that is relevant or responsive to these special conditions, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and the indicated comments will not be placed in the public docket of these special conditions. Send submissions containing CBI to the Information Contact below. Comments the FAA receives, which are not specifically designated as CBI, will be placed in the public docket for these special conditions.

*Docket:* Background documents or comments received may be read at <https://www.regulations.gov/> at any time. Follow the online instructions for accessing the docket or go to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Troy Brown, Performance and Environment Unit, AIR-621A, Technical Policy Branch, Policy and Standards Division, Aircraft Certification Service, Federal Aviation Administration, 1801 S Airport Rd., Wichita, KS 67209-2190; telephone and fax 405-666-1050; email [troy.a.brown@faa.gov](mailto:troy.a.brown@faa.gov).

**SUPPLEMENTARY INFORMATION:** The substance of these special conditions has been published in the **Federal Register** for public comment in several prior instances with no substantive comments received. Therefore, the FAA finds, pursuant to § 11.38(b), that new comments are unlikely, and notice and comment prior to this publication are unnecessary.

#### Comments Invited

The FAA invites interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data.

The FAA will consider all comments received by the closing date for comments. The FAA may change these special conditions based on the comments received.

#### Background

On July 1, 2012, Dassault Aviation applied for a type certificate for its new Model Falcon 5X airplane. However, Dassault has decided not to release an

airplane under the model designation Falcon 5X, instead choosing to change that model designation to Falcon 6X.

In February of 2018, due to engine supplier issues, Dassault extended the type certificate application date for its Model Falcon 5X airplane under new Model Falcon 6X. This airplane is a twin-engine business jet with seating for 19 passengers, and has a maximum takeoff weight of 77,460 pounds.

#### Type Certification Basis

Under the provisions of 14 CFR 21.17, Dassault must show that the Model Falcon 6X airplane meets the applicable provisions of part 25, as amended by amendments 25-1 through 25-146.

If the Administrator finds that the applicable airworthiness regulations (e.g., 14 CFR part 25) do not contain adequate or appropriate safety standards for the Dassault Model Falcon 6X airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Dassault Model Falcon 6X airplane must comply with the fuel-vent and exhaust-emission requirements of 14 CFR part 34, and the noise-certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.17(a)(2).

#### Novel or Unusual Design Features

The Dassault Model Falcon 6X airplane will incorporate the following novel or unusual design features:

A high-incidence protection system that replaces the stall warning system during normal operating conditions, prohibits the airplane from stalling, limits the angle of attack at which the airplane can be flown during normal low speed operation, and cannot be overridden by the flight crew. The application of this angle-of-attack limit impacts the stall speed determination, the stall characteristics and stall-warning demonstration, and the longitudinal handling characteristics. The current airworthiness standards do not contain adequate safety standards

for the unique features of the high-incidence protection system.

#### Discussion

The high-incidence protection system prevents the airplane from stalling at low speeds and, therefore, a stall-warning system is not needed during normal flight conditions. However, during failure conditions, which are not shown to be extremely improbable, the requirements of §§ 25.203 and 25.207 apply, although slightly modified. If there are failures not shown to be extremely improbable, the flight characteristics at the AoA for  $C_{Lmax}$  must be suitable in the traditional sense, and stall warning must be provided in a conventional manner.

These special conditions address this novel or unusual design feature on the Dassault Model Falcon 6X and contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

#### Applicability

As discussed above, these special conditions are applicable to the Dassault Model Falcon 6X airplane. Should Dassault apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, these special conditions would apply to that model as well.

#### Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability.

#### List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

#### Authority Citation

The authority citation for these special conditions is as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 40113, 44701, 44702, 44704.

#### The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Dassault Aviation Model Falcon 6X airplanes.

#### Special Conditions Part I: Stall Protection and Scheduled Operating Speeds

##### Foreword

In the following paragraphs, "in icing conditions" means with the ice

accretions (relative to the relevant flight phase) as defined in 14 CFR part 25, Amendment 121, appendix C.

(a) *Definitions*

These special conditions address novel or unusual design features of the Dassault Model Falcon 6X airplane and use terminology that does not appear in 14 CFR part 25. For the purpose of these special conditions, the following terms describe certain aspects of these novel or unusual design feature:

(1) High-Incidence Protection System

A system that operates directly and automatically on the airplane's flight controls to limit the maximum angle of attack (AoA) that can be attained to a value below that at which an aerodynamic stall would occur.

(2) Alpha-Limit

The maximum AoA at which the airplane stabilizes with the high-incidence protection system operating and the longitudinal control held on its aft stop.

(3)  $V_{min}$

The minimum steady flight speed in the airplane configuration under consideration with the high-incidence protection system operating. See section (c) of these special conditions.

(4)  $V_{min1g}$

$V_{min}$  corrected to 1-g conditions. See section (c)(3). of these special conditions. It is the minimum calibrated airspeed at which the airplane can develop a lift force normal to the flight path equal to its weight, while at an AoA not greater than that determined for  $V_{min}$ .

(b) *Capability and Reliability of the High-Incidence Protection System*

The applicant must establish the capability and reliability of the high incidence protection system. The applicant may establish this capability and reliability by flight test, simulation, or analysis as appropriate. The capability and reliability required are:

(1) It must not be possible during pilot-induced maneuvers to encounter a stall and handling characteristics must be acceptable, as required by section (e) of these Special Conditions.

(2) The airplane must be protected against stalling due to the effects of wind-shears and gusts at low speeds as required by section (f) of these Special Conditions.

(3) The ability of the high-incidence protection system to accommodate any reduction in stalling incidence must be verified in icing conditions.

(4) The high-incidence protection system must be provided in each abnormal configuration of the high lift devices that is likely to be used in flight following system failures.

(5) The reliability of the system and the effects of failures must be acceptable in accordance with § 25.1309.

(c) *Minimum Steady Flight Speed and Reference Stall Speed*

In lieu of § 25.103, the following requirements apply:

(1) The minimum steady flight speed,  $V_{min}$ , is the final, stabilized, calibrated airspeed obtained when the airplane is decelerated until the longitudinal control is on its stop in such a way that the entry rate does not exceed 1 knot per second.

(2) The minimum steady flight speed,  $V_{min}$ , must be determined in icing and non-icing conditions with:

(i) The high-incidence protection system operating normally.

(ii) Idle thrust and automatic thrust system (if applicable) inhibited;

(iii) All combinations of flaps setting and landing gear position for which  $V_{min}$  is required to be determined;

(iv) The weight used when reference stall speed,  $V_{SR}$ , is being used as a factor to determine compliance with a required performance standard;

(v) The most unfavorable center of gravity allowable; and

(vi) The airplane trimmed for straight flight at a speed achievable by the automatic trim system.

(3) The 1-g minimum steady-flight speed,  $V_{min1g}$ , is the minimum calibrated airspeed at which the airplane can develop a lift force (normal to the flight path) equal to its weight, while at an angle of attack not greater than that at which the minimum steady flight speed of section (c)(1) was determined. It must be determined in icing and non-icing conditions.

(4) The reference stall speed,  $V_{SR}$ , is a calibrated airspeed defined by the applicant.  $V_{SR}$  may not be less than a 1g stall speed.  $V_{SR}$  must be determined in non-icing conditions and expressed as:

$$V_{SR} \geq \frac{V_{CLmax}}{\sqrt{n_{ZW}}}$$

Where:

Calibrated airspeed obtained when the load factor-corrected lift coefficient

$$\left( \frac{n_{ZW}W}{qS} \right)$$

is first a maximum during the maneuver prescribed in section (c)(5)(viii) of this paragraph,

$n_{ZW}$  = Load factor normal to the flight path at  $V_{CLmax}$ ,

W = Airplane gross weight,

S = Aerodynamic reference wing area; and

q = Dynamic pressure.

(5)  $V_{CLmax}$  is determined in non-icing conditions with:

(i) Engines idling, or, if that resultant thrust causes an appreciable decrease in stall speed, not more than zero thrust at the stall speed;

(ii) The airplane in other respects (such as flaps and landing gear) in the condition existing in the test or performance standard in which  $V_{SR}$  is being used;

(iii) The weight used when  $V_{SR}$  is being used as a factor to determine compliance with a required performance standard;

(iv) The center of gravity position that results in the highest value of reference stall speed;

(v) The airplane trimmed for straight flight at a speed achievable by the automatic trim system, but not less than 1.13  $V_{SR}$  and not greater than 1.3  $V_{SR}$ ;

(vi) Reserved.

(vii) The high-incidence protection system adjusted, at the option of the applicant, to allow higher incidence than is possible with the normal production system; and

(viii) Starting from the stabilized trim condition, apply the longitudinal control to decelerate the airplane so that the speed reduction does not exceed 1 knot per second.

(d) *Stall Warning*

In lieu of § 25.207, the following requirements apply:

(1) Normal Operation

If the design meets all conditions of Part 1, section (b) of these special conditions, then the airplane need not provide stall warning during normal operation. The conditions of section (b) provide an equivalent level of safety to § 25.207, Stall Warning, so the provision of an additional, unique warning device is not required.

(2) High-Incidence Protection System Failure

For any failure of the high-incidence protection system that the applicant cannot show to be extremely improbable, and that results in the capability of the system no longer satisfying conditions (b)(1), (b)(2), and (b)(3), the design must provide stall warning that protects against encountering unacceptable characteristics and against encountering stall.

(i) This stall warning, with the flaps and landing gear in any normal position, must be clear and distinctive to the pilot and meet the requirements

specified in conditions (d)(2)(iv) and (d)(2)(v) below.

(ii) The design must also provide this stall warning in each abnormal configuration of the high lift devices that is likely to be used in flight following system failures.

(iii) The design may furnish this stall warning either through the inherent aerodynamic qualities of the airplane or by a device that will give clearly distinguishable indications under expected conditions of flight. However, a visual stall warning device that requires the attention of the crew within the flight deck is not acceptable by itself. If a warning device is used, it must provide a warning in each of the airplane configurations prescribed in condition (d)(2)(i) above and for the conditions prescribed below in conditions (d)(2)(iv) and (d)(2)(v) below.

(iv) In non-icing conditions, stall warning must provide sufficient margin to prevent encountering unacceptable characteristics and encountering stall in the following conditions:

(A) In power-off straight deceleration not exceeding 1 knot per second to a speed 5 knots or 5 percent calibrated airspeed (CAS), whichever is greater, below the warning onset.

(B) In turning flight, stall deceleration at entry rates up to 3 knots per second when recovery is initiated not less than 1 second after the warning onset.

(v) In icing conditions, stall warning must provide sufficient margin to prevent encountering unacceptable characteristics and encountering stall, in power off straight and turning flight decelerations not exceeding 1 knot per second, when the pilot starts a recovery maneuver not less than three seconds after the onset of stall warning.

(vi) An airplane is considered stalled when the behavior of the airplane gives the pilot a clear and distinctive indication of an acceptable nature that the airplane is stalled. Acceptable indications of a stall, occurring either individually or in combination are:

(A) A nose-down pitch that cannot be readily arrested;

(B) Buffeting, of a magnitude and severity that is strong and effective deterrent to further speed reduction; or

(C) The pitch control reaches the aft stop and no further increase in pitch attitude occurs when the control is held full aft for a short time before recovery is initiated.

(vii) An aircraft exhibits unacceptable characteristics during straight or turning flight decelerations if it is not always possible to produce and to correct roll and yaw by unreversed use of aileron and rudder controls, or abnormal nose-up pitching occurs.

*(e) Handling Characteristics at High Incidence*

In lieu of both § 25.201 and § 25.203, the following apply:

(1) High-Incidence Handling Demonstrations

In lieu of § 25.201: the following apply:

(i) Maneuvers to the limit of the longitudinal control, in nose-up pitch, must be demonstrated in straight flight and in 30-degree banked turns with:

(A) The high-incidence protection system operating normally;

(B) Initial power conditions of:

(1) Power off; and

(2) The power necessary to maintain level flight at  $1.5 V_{SR1}$ , where  $V_{SR1}$  is the reference stall speed with flaps in approach position, the landing gear retracted, and maximum landing weight;

(C) None;

(D) Flaps, landing gear, and deceleration devices in any likely combination of positions;

(E) Representative weights within the range for which certification is requested; and

(F) The airplane trimmed for straight flight at a speed achievable by the automatic trim system.

(ii) The following procedures must be used to show compliance in non-icing and icing conditions:

(A) Starting at a speed sufficiently above the minimum steady flight speed to ensure that a steady rate of speed reduction can be established, apply the longitudinal control so that the speed reduction does not exceed 1 knot per second until the control reaches the stop.

(B) The longitudinal control must be maintained at the stop until the airplane has reached a stabilized flight condition and must then be recovered by normal recovery techniques.

(C) Maneuvers with increased deceleration rates:

(1) In non-icing conditions, the requirements must also be met with increased rates of entry to the incidence limit, up to the maximum rate achievable.

(2) In icing conditions, with the anti-ice system working normally, the requirements must also be met with increased rates of entry to the incidence limit, up to 3 knots per second.

(D) Maneuvers with ice accretion prior to operation of the normal anti-ice system: With the ice accretion prior to operation of the normal anti-ice system, the requirement must also be met in deceleration at 1 knot per second up to full back stick.

(2) Characteristics in High-Incidence Maneuvers

In lieu of § 25.203, the following apply in icing and non-icing conditions:

(i) Throughout maneuvers with a rate of deceleration of not more than 1 knot per second, both in straight flight and in 30-degree banked turns, the airplane's characteristics must be as follows:

(A) There must not be any abnormal nose-up pitching.

(B) There must not be any uncommanded nose-down pitching, which would be indicative of stall. However reasonable attitude changes associated with stabilizing the incidence at Alpha limit as the longitudinal control reaches the stop would be acceptable.

(C) There must not be any uncommanded lateral or directional motion and the pilot must retain good lateral and directional control, by conventional use of the controls, throughout the maneuver.

(D) The airplane must not exhibit buffeting of a magnitude and severity that would act as a deterrent from completing the maneuver specified in (e)(1)(i).

(ii) In maneuvers with increased rates of deceleration, some degradation of characteristics is acceptable, associated with a transient excursion beyond the stabilized Alpha-limit. However, the airplane must not exhibit dangerous characteristics or characteristics that would deter the pilot from holding the longitudinal control on the stop for a period of time appropriate to the maneuver.

(iii) It must always be possible to reduce incidence by conventional use of the controls.

(iv) The rate at which the airplane can be maneuvered from trim speeds associated with scheduled operating speeds, such as  $V_2$  and  $V_{REF}$  up to Alpha-limit, must not be unduly damped or be significantly slower than can be achieved on conventionally controlled transport airplanes.

(3) Characteristics Up to Maximum Lift Angle of Attack

(i) In non-icing conditions:

Maneuvers with a rate of deceleration of not more than 1 knot per second up to the AoA at which  $V_{CLmax}$  was obtained, as defined in section (c) of these special conditions, must be demonstrated in straight flight and in 30-degree banked turns in the following configurations:

(A) The high-incidence protection deactivated or adjusted, at the option of the applicant, to allow higher incidence than is possible with the normal production system;

(B) Automatic thrust increase system inhibited (if applicable);

(C) Engines idling;

(D) Flaps and landing gear in any likely combination of positions; and

(E) The airplane trimmed for straight flight at a speed achievable by the automatic trim system.

(ii) In icing conditions:

Maneuvers with a rate of deceleration of not more than 1 knot per second up to the maximum AoA reached during maneuvers from section (e)(1)(ii)(C)(2) must be demonstrated in straight flight with:

(A) The high-incidence protection deactivated or adjusted, at the option of the applicant, to allow higher incidence than is possible with the normal production system;

(B) Automatic thrust increase system inhibited (if applicable);

(C) Engines idling;

(D) Flaps and landing gear in any likely combination of positions; and

(E) The airplane trimmed for straight flight at a speed achievable by the automatic trim system.

(iii) During the maneuvers used to show compliance with sections (e)(3)(i) and (e)(3)(ii) above, the airplane must not exhibit dangerous characteristics and it must always be possible to reduce AoA by conventional use of the controls. The pilot must retain good lateral and directional control, by conventional use of the controls, throughout the maneuver.

*(f) Atmospheric Disturbances*

Operation of the high-incidence protection system must not adversely affect aircraft control during expected levels of atmospheric disturbances, nor impede the application of recovery procedures in case of wind-shear. This must be demonstrated in non-icing and icing conditions.

*(g) Proof of Compliance*

In lieu of § 25.21(b), the design must meet the following requirement:

(b) The flying qualities must be evaluated at the most unfavorable center-of-gravity (CG) position.

*(h) Sections 25.145(a), 25.145(b)(6), and 25.1323(d)*

The design must meet the following modified requirements:

- Section 25.145(a) “ $V_{min}$ ” in lieu of “stall identification”
- Section 25.145(b)(6) “ $V_{min}$ ” in lieu of  $V_{SW}$
- Section 25.1323(d) “From 1.23  $V_{SR}$  to  $V_{min}$ . . .” in lieu of “1.23  $V_{SR}$  to stall warning speed. . .” and “speeds below  $V_{min}$ . . .” in lieu of “speeds below stall warning. . .”

**Special Conditions Part II: Credit for Robust Envelope Protection in Icing Conditions**

*(a) In lieu of § 25.21(g)(1), the following requirement applies: § 25.21, Proof of compliance:*

(g) The requirements of this subpart associated with icing conditions apply only if certification for flight in icing conditions is desired. If certification for flight in icing conditions is desired, the following requirements also apply (see AC 25–25):

(1) Each requirement of this subpart, except §§ 25.121(a), 25.123(c), 25.143(b)(1) and (b)(2), 25.149, 25.201(c)(2), 25.207(c) and (d), and 25.251(b) through (e), must be met in icing conditions. Compliance must be shown using the ice accretions defined in appendix C, assuming normal operation of the airplane and its ice protection system in accordance with the operating limitations and operating procedures established by the applicant and provided in the Airplane Flight Manual.

*(b) In lieu of § 25.103, define the stall speed as provided in Special Conditions Part I, section (c).*

*(c) In lieu of § 25.105(a)(2)(i), the following applies:*

Section 25.105, Take-off:

(2) In icing conditions, if in the configuration of § 25.121(b) with the “Take-off Ice” accretion defined in appendix C:

(i) the  $V_2$  speed scheduled in non-icing conditions does not provide the maneuvering capability specified in § 25.143(h) for the takeoff configuration, or

*(d) In lieu of § 25.107(c) and (g), the following apply, with additional sections (c’) and (g’):*

Section 25.107, Take-Off Speeds:

(c) In non-icing conditions  $V_2$ , in terms of calibrated airspeed, must be selected by the applicant to provide at least the gradient of climb required by § 25.121(b) but may not be less than—

(1)  $V_{2min}$ ;

(2)  $V_R$  plus the speed increment attained (in accordance with § 25.111(c)(2)) before reaching a height of 35 feet above the takeoff surface; and

(3) A speed that provides the maneuvering capability specified in § 25.143(h).

(c’) in icing conditions with the “take-off ice” accretion defined in part 25, appendix C,  $V_2$  may not be less than—

(1) the  $V_2$  speed determined in non-icing conditions; and

(2) A speed that provides the maneuvering capability specified in § 25.143(h).

(g) In non-icing conditions,  $V_{FTO}$ , in terms of calibrated airspeed, must be

selected by the applicant to provide at least the gradient of climb required by § 25.121(c), but may not be less than—

(1) 1.18  $V_{SR}$ ; and

(2) A speed that provides the maneuvering capability specified in § 25.143(h).

(g’) in icing conditions with the “Final take-off ice” accretion defined in part 25, appendix C,  $V_{FTO}$  may not be less than—

(1) the  $V_{FTO}$  speed determined in non-icing conditions.

(2) A speed that provides the maneuvering capability specified in § 25.143(h).

*(e) In lieu of §§ 25.121(b)(2)(ii)(A), 25.121(c)(2)(ii)(A), and 25.121(d)(2)(ii), the following apply:*

Section 25.121, Climb: One-Engine Inoperative:

In lieu of § 25.121(b)(2)(ii)(A):

(A) The  $V_2$  speed scheduled in non-icing conditions does not provide the maneuvering capability specified in § 25.143(h) for the take-off configuration; or

In lieu of § 25.121(c)(2)(ii)(A):

(A) The  $V_{FTO}$  speed scheduled in non-icing conditions does not provide the maneuvering capability specified in § 25.143(h) for the en-route configuration; or

In lieu of § 25.121(d)(2)(ii):

(d)(2) The requirements of subparagraph (d)(1) of this paragraph must be met:

(ii) In icing conditions with the approach ice accretion defined in part 25, appendix C, in a configuration corresponding to the normal all-engines-operating procedure in which  $V_{min}1g$  for this configuration does not exceed 110% of the  $V_{min}1g$  for the related all-engines-operating landing configuration in icing, with a climb speed established with normal landing procedures, but not more than 1.  $V_{SR}$  ( $V_{SR}$  determined in non-icing conditions).

*(f) In lieu of § 25.123(b)(2)(i), the following requirements apply:*

Section 25.123, En-route flight paths.

(i) The minimum en-route speed scheduled in non-icing conditions does not provide the maneuvering capability specified in § 25.143(h) for the en-route configuration; or

*(g) In lieu of § 25.125(b)(2)(ii)(B), replace with the following requirements and remove § 25.125(b)(2)(ii)(C):*

Section 25.125, Landing.

(B) A speed that provides the maneuvering capability specified in § 25.143(h) with the landing ice accretion defined in part 25, appendix C.

(C) [removed].

*(h) In lieu of § 25.143(j)(1), the following applies:*

Section 25.143, General.

(1) The airplane is controllable in a pull-up maneuver up to 1.5g load factor or lower if limited by AoA protection.

(i) *In lieu of § 25.207, Stall warning, change to read as the requirements defined in Part I Special Conditions, section (d).*

Issued in Des Moines, Washington, on May 18, 2023.

**Suzanne A. Masterson,**

*Acting Manager, Technical Policy Branch, Policy and Standards Division, Aircraft Certification Service.*

[FR Doc. 2023-10971 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-1049; Project Identifier AD-2023-00591-R; Amendment 39-22441; AD 2023-10-05]

RIN 2120-AA64

#### Airworthiness Directives; Leonardo S.p.a. Helicopters

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is superseding Emergency Airworthiness Directive (AD) 2023-07-51, which applied to all Leonardo S.p.a. Model AB139 and AW139 helicopters and which was previously sent to all known U.S. owners and operators of those helicopters. Emergency AD 2023-07-51 required inspecting for a gap between the main rotor (M/R) pitch link upper rod end assembly bearing and the pitch control lever assembly and, depending on the results, replacing or re-identifying the M/R pitch link upper rod end assembly. Emergency AD 2023-07-51 also prohibited installing an affected M/R pitch link upper rod end assembly. Since the FAA issued Emergency AD 2023-07-51, it has been determined that a gap between the M/R pitch link upper rod end assembly bearing and the pitch control lever assembly that is within a certain dimension tolerance is acceptable. This AD continues to require the actions in Emergency AD 2023-07-51, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference in this AD, but allows a gap of less than 0.5 mm. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective June 7, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 7, 2023.

The FAA must receive comments on this AD by July 7, 2023.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- *Fax:* (202) 493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1049; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For EASA material that is incorporated by reference in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); internet [easa.europa.eu](http://easa.europa.eu). You may find the EASA material on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

- You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1049.

*Other Related Service Information:*

For Leonardo Helicopters service information that is identified in this final rule, contact Leonardo S.p.A., Emanuele Bufano, Head of Airworthiness, Viale G. Agusta 520, 21017 C Costa di Samarate (Va) Italy; telephone (+39) 0331-225074; fax (+39) 0331-229046; or at [customerportal.leonardocompany.com/en-US/](https://customerportal.leonardocompany.com/en-US/). You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

**FOR FURTHER INFORMATION CONTACT:** Dan McCully, Program Manager,

International Validation Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (404) 474-5548; email [william.mccully@faa.gov](mailto:william.mccully@faa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include “Docket No. FAA-2023-1049; Project Identifier AD-2023-00591-R” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

##### Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Dan McCully, Program Manager, International Validation Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (404) 474-5548; email [william.mccully@faa.gov](mailto:william.mccully@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

##### Background

The FAA issued Emergency AD 2023-07-51 on March 31, 2023, to address an unsafe condition on all Leonardo S.p.a. Model AB139 and AW139 helicopters.

The FAA sent Emergency AD 2023–07–51 to all known U.S. owners and operators of those helicopters.

Emergency AD 2023–07–51 required inspecting for a gap between the M/R pitch link upper rod end assembly bearing and the pitch control lever assembly and, depending on the results, replacing or re-identifying the M/R pitch link upper rod end assembly. Emergency AD 2023–07–51 also prohibited installing an affected M/R pitch link upper rod end assembly.

Emergency AD 2023–07–51 was prompted by EASA Emergency AD 2023–0071–E, dated March 31, 2023 (EASA AD 2023–0071–E), issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA advises of a report of excessive play of a bearing installed in an M/R pitch link upper rod end assembly part number (P/N) 3G6230A01133. EASA also advises that subsequent investigation revealed that the excessive play was due to incorrect installation of the bearing during production. You may examine EASA AD 2023–0071–E in the AD docket at *regulations.gov* under Docket No. FAA–2023–1049.

The FAA issued Emergency AD 2023–07–51 to detect incorrect installation of a bearing. This condition, if not addressed, could result in a crack in the M/R pitch link upper rod end assembly, failure of the M/R pitch link upper rod end assembly, and subsequent loss of control of the helicopter.

#### **Actions Since Emergency AD 2023–07–51 Was Issued**

Since the FAA issued Emergency AD 2023–07–51, Leonardo Helicopters contacted the FAA and clarified that a gap not exceeding 0.5 mm between the pitch link top bearing and associated seat is permitted in the service information required by EASA AD 2023–0071–E to accommodate the sliding of the bushing into the lug per design. Leonardo Helicopters also stated that prohibiting any gap may ground some helicopters that are within design parameters. Leonardo Helicopters subsequently submitted a request for a global alternative method of compliance (AMOC), which the FAA approved. The global AMOC allowed measuring the gap between the M/R pitch link upper rod end assembly bearing and the pitch control lever assembly on each side without cleaning the area or using a feeler gauge. The approved global AMOC also allowed a gap up to and including 0.5 mm in width. From additional review since issuance of the global AMOC, the FAA has determined that cleaning the inspection area and

using a feeler gauge for the inspection are required. The FAA has also reduced the maximum allowable gap to less than 0.5 mm. Accordingly, the global AMOC approved for Emergency AD 2023–07–51 is not approved as an AMOC for the corresponding requirements of this AD.

#### **Related Service Information Under 1 CFR Part 51**

EASA AD 2023–0071–E requires a one-time dimensional check of affected M/R pitch link upper rod end assemblies and, depending on the results, replacing or re-identifying the affected part. EASA AD 2023–0071–E also prohibits installing an affected M/R pitch link upper rod end assembly.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

#### **Other Related Service Information**

The FAA reviewed Leonardo Helicopters Emergency Alert Service Bulletin No. 139–754, dated March 31, 2023. This service information specifies procedures for certain serial-numbered M/R pitch link upper rod end assemblies P/N 3G6230A01133 that are not marked with the letter “R.” This service information specifies a one-time inspection by cleaning the upper M/R pitch link upper rod end assembly bearing, bolt, and pitch lever assembly; and using a feeler gauge to inspect for a gap. Depending on the results, this service information specifies procedures for replacing the M/R pitch link upper rod end assembly, completing an inspection report, contacting LHD [Leonardo Helicopters Division], and sending the removed M/R pitch link upper rod end assembly to LHD; or marking the letter “R” near the M/R pitch link upper rod end assembly serial number.

#### **FAA’s Determination**

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in its AD and the service information described above. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of these same type designs.

#### **AD Requirements**

This AD requires accomplishing the actions specified in EASA AD 2023–

0071–E, described previously as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under “Differences Between this AD and the EASA AD.”

#### **Explanation of Required Compliance Information**

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, EASA AD 2023–0071–E is incorporated by reference in this FAA final rule. This AD, therefore, requires compliance with EASA AD 2023–0071–E in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this AD. Using common terms that are the same as the heading of a particular section in EASA AD 2023–0071–E does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2023–0071–E. Service information referenced in EASA AD 2023–0071–E for compliance will be available at *regulations.gov* under Docket No. FAA–2023–1049 after this final rule is published.

#### **Differences Between This AD and the EASA AD**

EASA AD 2023–0071–E requires a dimensional check before next flight, whereas this AD requires inspecting for a gap within four calendar days. EASA AD 2023–0071–E requires re-identifying an affected M/R pitch link upper rod end assembly that passed the dimensional inspection within 25 flight hours or at the next removal of an affected part, whichever occurs first, whereas this AD requires that action within 25 hours time-in-service.

#### **Justification for Immediate Adoption and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency,



upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that required the immediate adoption of Emergency AD 2023–07–51, issued on March 31, 2023, to all known U.S. owners and operators of these helicopters. The FAA found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because the main rotor pitch link upper rod end assembly is critical to the control of a helicopter and failure of the main rotor pitch link upper rod end assembly could occur during any phase of flight without previous indication. The FAA has no information pertaining to how quickly the condition may propagate to failure. Thus, the required inspection must be accomplished within four calendar days. These conditions still exist, therefore, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

#### Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

#### Costs of Compliance

The FAA estimates that this AD affects 117 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting an M/R pitch link rod end assembly will take about 1 work-hour for an estimated cost of \$85 per helicopter and up to \$9,945 for the U.S. fleet. Re-identifying an M/R pitch link upper rod end assembly will take a minimal amount of time with a nominal parts cost. Replacing an M/R pitch link rod end assembly will take about 2 work-hours and parts will cost about \$5,698, for an estimated cost of \$5,868 per helicopter.

#### Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

#### Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

#### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### PART 39—AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

##### § 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2023–10–05 Leonardo S.p.a.:** Amendment 39–22441; Docket No. FAA–2023–1049; Project Identifier AD–2023–00591–R.

#### (a) Effective Date

This airworthiness directive (AD) is effective June 7, 2023.

#### (b) Affected ADs

This AD replaces Emergency AD 2023–07–51, Project Identifier MCAI–2023–00551–R, issued on March 31, 2023.

#### (c) Applicability

This AD applies to all Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category.

#### (d) Subject

Joint Aircraft System Component (JASC) Code: 6200, Main Rotor System.

#### (e) Unsafe Condition

This AD was prompted by a report of excessive play of the bearing installed in a main rotor (M/R) pitch link upper rod end assembly. The FAA is issuing this AD to detect incorrect installation of the bearing. The unsafe condition, if not addressed, could result in a crack in the M/R pitch link upper rod end assembly, failure of the M/R pitch link upper rod end assembly, and subsequent loss of control of the helicopter.

#### (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

#### (g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency Emergency AD 2023–0071–E, dated March 31, 2023 (EASA AD 2023–0071–E).

#### (h) Exceptions to EASA AD 2023–0071–E

(1) Where EASA AD 2023–0071–E refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2023–0071–E requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(3) Where paragraph (1) of EASA AD 2023–0071–E states, "before next flight;" for this AD, replace that text with, "within four calendar days."

(4) Where paragraph (1) of EASA AD 2023–0071–E requires a dimensional check, this AD requires an inspection for a gap.

(5) Instead of complying with paragraph (2) of EASA AD 2023–0071–E, comply with the following: "As a result of the inspection required by paragraph (1) of EASA AD 2023–0071–E, for this AD, if there is any gap that measures 0.5 mm or more between the M/R pitch link upper rod end assembly bearing and the pitch control lever assembly on either side, before further flight, remove the affected part, as defined in EASA AD 2023–0071–E, from service and replace it with a serviceable part, as defined in EASA AD 2023–0071–E."

(6) Where paragraph (3) of EASA AD 2023–0071–E states, "Within 25 flight hours, or at the next removal of an affected part, whichever occurs first;" for this AD, replace that text with, "Within 25 hours time-in-service."

(7) This AD does not adopt the “Remarks” section of EASA AD 2023–0071–E.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2023–0071–E specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Special Flight Permits**

Special flight permits are prohibited.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in § 39.19. In accordance with § 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l) of this AD. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (l) of this AD or email to: *9-AVS-AIR-730-AMOC@faa.gov*. If mailing information, also submit information by email.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Additional Information**

For more information about this AD, contact Dan McCully, Program Manager, International Validation Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (404) 474–5548; email *william.mccully@faa.gov*.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) Emergency AD 2023–0071–E, dated March 31, 2023.

(ii) [Reserved]

(3) For EASA AD 2023–0071–E, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu*; internet *easa.europa.eu*. You may find the EASA material on the EASA website at *ad.easa.europa.eu*.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N–321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,

email: *fr.inspection@nara.gov*, or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html*.

Issued on May 17, 2023.

**Michael Linegang,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2023–10996 Filed 5–19–23; 11:15 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 97**

[Docket No. 31485Amdt. No. 4059]

**Standard Instrument Approach Procedures, and Takeoff Minimums and Obstacle Departure Procedures; Miscellaneous Amendments**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This rule establishes, amends, suspends, or removes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures (ODPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

**DATES:** This rule is effective May 23, 2023. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 23, 2023.

**ADDRESSES:** Availability of matters incorporated by reference in the amendment is as follows:

**For Examination**

1. U.S. Department of Transportation, Docket Ops-M30. 1200 New Jersey Avenue SE, West Bldg., Ground Floor, Washington, DC, 20590–0001.

2. The FAA Air Traffic Organization Service Area in which the affected airport is located;

3. The office of Aeronautical Information Services, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 or,

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fr.inspection@nara.gov* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html*.

**Availability**

All SIAPs and Takeoff Minimums and ODPs are available online free of charge. Visit the National Flight Data Center at *nfdc.faa.gov* to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from the FAA Air Traffic Organization Service Area in which the affected airport is located.

**FOR FURTHER INFORMATION CONTACT:**

Thomas J. Nichols, Flight Procedures and Airspace Group, Flight Technologies and Procedures Division, Flight Standards Service, Federal Aviation Administration. Mailing Address: FAA Mike Monroney Aeronautical Center, Flight Procedures and Airspace Group, 6500 South MacArthur Blvd., STB Annex, Bldg 26, Room 217, Oklahoma City, OK 73099. Telephone (405) 954–1139.

**SUPPLEMENTARY INFORMATION:**

This rule amends 14 CFR part 97 by establishing, amending, suspending, or removes SIAPs, Takeoff Minimums and/or ODPS. The complete regulatory description of each SIAP and its associated Takeoff Minimums or ODP for an identified airport is listed on FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR part 97.20. The applicable FAA Forms 8260–3, 8260–4, 8260–5, 8260–15A, 8260–15B, when required by an entry on 8260–15A, and 8260–15C.

The large number of SIAPs, Takeoff Minimums and ODPs, their complex nature, and the need for a special format make publication in the **Federal Register** expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, Takeoff Minimums or ODPs, but instead refer to their graphic depiction on charts printed by publishers or aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP, Takeoff Minimums and ODP listed on FAA form documents is unnecessary. This amendment provides the affected CFR sections and specifies the typed of SIAPs, Takeoff Minimums and ODPs

with their applicable effective dates. This amendment also identifies the airport and its location, the procedure, and the amendment number.

#### Availability and Summary of Material Incorporated by Reference

The material incorporated by reference is publicly available as listed in the **ADDRESSES** section.

The material incorporated by reference describes SIAPS, Takeoff Minimums and/or ODPs as identified in the amendatory language for Part 97 of this final rule.

#### The Rule

This amendment to 14 CFR part 97 is effective upon publication of each separate SIAP, Takeoff Minimums and ODP as amended in the transmittal. Some SIAP and Takeoff Minimums and textual ODP amendments may have been issued previously by the FAA in a Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of immediate flights safety relating directly to published aeronautical charts.

The circumstances that created the need for some SIAP and Takeoff Minimums and ODP amendments may require making them effective in less than 30 days. For the remaining SIAPs and Takeoff Minimums and ODPs, an effective date at least 30 days after publication is provided.

Further, the SIAPs and Takeoff Minimums and ODPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedure under 5 U.S.C. 553(b) are impracticable and contrary to the public interest and, where applicable, under 5 U.S.C. 553(d), good cause exists for making some SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated

impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### Lists of Subjects in 14 CFR Part 97

Air Traffic Control, Airports, Incorporation by reference, Navigation (Air).

Issued in Washington, DC, on April 28, 2023.

**Thomas J. Nichols,**

*Manager, Aviation Safety, Flight Standards Service Standards Section, Flight Procedures & Airspace Group Flight Technologies & Procedures Division.*

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me, 14 CFR part 97 is amended by establishing, amending, suspending, or removing Standard Instrument Approach Procedures and/or Takeoff Minimums and Obstacle Departure Procedures effective at 0901 UTC on the dates specified, as follows:

#### PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES

■ 1. The authority citation for part 97 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721–44722.

■ 2. Part 97 is amended to read as follows:

*Effective 15 June 2023*

Fairbanks, AK, PAFA, TACAN RWY 20R, Orig  
 Fairbanks, AK, PAFA, Takeoff Minimums and Obstacle DP, Amdt 8  
 Fairbanks, AK, PAFA, VOR OR TACAN RWY 20R, Orig-B, CANCELED  
 Fort Smith, AR, KFSM, ILS OR LOC RWY 8, Amdt 2  
 Fort Smith, AR, KFSM, ILS Z OR LOC Z RWY 26, Amdt 23  
 Fort Smith, AR, KFSM, RADAR-1, Amdt 9  
 Fort Smith, AR, KFSM, RNAV (GPS) RWY 8, Amdt 2  
 Fort Smith, AR, KFSM, RNAV (GPS) RWY 26, Amdt 2  
 Fort Smith, AR, KFSM, Takeoff Minimums and Obstacle DP, Amdt 5  
 Fort Smith, AR, KFSM, VOR Z OR TACAN Z RWY 8, Amdt 12  
 Fort Smith, AR, KFSM, VOR Z OR TACAN Z RWY 26, Amdt 21  
 Groveland, CA, E45, GPS RWY 27, Orig-D  
 Half Moon Bay, CA, KHAF, SEEMS ONE, Graphic DP  
 Half Moon Bay, CA, KHAF, Takeoff Minimums and Obstacle DP, Amdt 2  
 Los Angeles, CA, KLAX, ILS OR LOC RWY 25L, ILS RWY 25L (CAT II), ILS RWY 25L (CAT III), Amdt 15

Los Angeles, CA, KLAX, RNAV (GPS) Y RWY 25L, Amdt 5  
 Rifle, CO, KRIL, SQUAT FIVE, Graphic DP  
 Lihue, HI, PHLI, KAUAI ONE, Graphic DP  
 Lihue, HI, PHLI, Takeoff Minimums and Obstacle DP, Amdt 9  
 Sandpoint, ID, KSZT, LOC-A, Amdt 2A  
 Chicago/West Chicago, IL, KDPA, RNAV (GPS) RWY 2L, Amdt 1  
 Chicago/West Chicago, IL, KDPA, RNAV (GPS) RWY 20R, Amdt 2  
 Chicago, IL, KORD, ILS OR LOC RWY 9C, ILS RWY 9C (SA CAT I), ILS RWY 9C (CAT II), ILS RWY 9C (CAT III), Orig-A  
 Chicago, IL, KORD, ILS OR LOC RWY 27C, ILS RWY 27C (SA CAT I), ILS RWY 27C (CAT II), ILS RWY 27C (CAT III), Orig-A  
 Quincy, IL, KUIN, Takeoff Minimums and Obstacle DP, Orig-A  
 New Hudson, MI, Y47, RNAV (GPS)-A, Orig  
 New Hudson, MI, Y47, VOR OR GPS-A, Amdt 3D, CANCELED  
 Caledonia, MN, KCHU, RNAV (GPS)-B, Orig  
 Caledonia, MN, KCHU, VOR-A, Amdt 4  
 Lewistown, MT, KLWT, Takeoff Minimums and Obstacle DP, Amdt 5  
 Caldwell, NJ, KCDW, LOC RWY 22, Amdt 4C  
 Caldwell, NJ, KCDW, RNAV (GPS) RWY 4, Orig-E  
 Caldwell, NJ, KCDW, RNAV (GPS) RWY 22, Amdt 2C  
 Piqua, OH, I17, RNAV (GPS) RWY 8, Amdt 1  
 Piqua, OH, I17, RNAV (GPS) RWY 26, Amdt 1  
 Waverly, OH, KEOP, NDB RWY 25, Amdt 1B, CANCELED  
 Waverly, OH, KEOP, RNAV (GPS) RWY 7, Amdt 2  
 Vinita, OK, H04, RNAV (GPS)-A, Orig  
 Vinita, OK, H04, Takeoff Minimums and Obstacle DP, Orig  
 Medford, OR, KMFRR, RNAV (GPS) Y RWY 32, Orig  
 Indiana, PA, KIDI, RNAV (GPS) RWY 29, Amdt 1  
 Pittsburgh, PA, KPIT, RNAV (GPS) Y RWY 32, Amdt 6A  
 Pittsburgh, PA, KPIT, RNAV (RNP) Z RWY 32, Amdt 2A  
 Charleston, SC, KCHS, VOR/DME OR TACAN RWY 3, Amdt 14D  
 Sparta, TN, KSRB, ILS OR LOC RWY 4, Amdt 1E  
 Sparta, TN, KSRB, NDB RWY 4, Amdt 4E  
 Tullahoma, TN, KTHA, RNAV (GPS) RWY 6, Amdt 2A  
 Tullahoma, TN, KTHA, RNAV (GPS) RWY 18, Amdt 1D  
 Tullahoma, TN, KTHA, RNAV (GPS) RWY 24, Amdt 1D  
 Tullahoma, TN, KTHA, RNAV (GPS) RWY 36, Amdt 1D  
 Smithville, TX, 84R, RNAV (GPS) RWY 17, Orig  
 Smithville, TX, 84R, RNAV (GPS) RWY 35, Orig  
 Smithville, TX, 84R, Takeoff Minimums and Obstacle DP, Orig

**RESCINDED:** On April 25, 2023 (88 FR 24902), the FAA published an Amendment in Docket No. 31481, Amdt No. 4055, to Part 97 of the Federal Aviation Regulations under section 97.33. The following entries for, Seattle,

WA, effective June 15, 2023, are hereby rescinded in their entirety:

Seattle, WA, KBFI, RNAV (GPS) Y RWY 14R, Amdt 1A, CANCELED  
Seattle, WA, KBFI, RNAV (RNP) Z RWY 14R, Amdt 1A, CANCELED

[FR Doc. 2023-10940 Filed 5-22-23; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 97

[Docket No. 31486; Amdt. No. 4060]

#### Standard Instrument Approach Procedures, and Takeoff Minimums and Obstacle Departure Procedures; Miscellaneous Amendments

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This rule amends, suspends, or removes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide for the safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

**DATES:** This rule is effective May 23, 2023. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 23, 2023.

**ADDRESSES:** Availability of matter incorporated by reference in the amendment is as follows:

#### For Examination

1. U.S. Department of Transportation, Docket Ops-M30, 1200 New Jersey Avenue SE, West Bldg., Ground Floor, Washington, DC, 20590-0001;
2. The FAA Air Traffic Organization Service Area in which the affected airport is located;
3. The office of Aeronautical Information Services, 6500 South

MacArthur Blvd., Oklahoma City, OK 73169 or,

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov) or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

#### Availability

All SIAPs and Takeoff Minimums and ODPs are available online free of charge. Visit the National Flight Data Center online at [nfdc.faa.gov](https://nfdc.faa.gov) to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from the FAA Air Traffic Organization Service Area in which the affected airport is located.

#### FOR FURTHER INFORMATION CONTACT:

Thomas J. Nichols, Flight Procedures and Airspace Group, Flight Technologies and Procedures Division, Flight Standards Service, Federal Aviation Administration. Mailing Address: FAA Mike Monroney Aeronautical Center, Flight Procedures and Airspace Group, 6500 South MacArthur Blvd., STB Annex, Bldg 26, Room 217, Oklahoma City, OK 73099. Telephone: (405) 954-1139.

#### SUPPLEMENTARY INFORMATION:

This rule amends 14 CFR part 97 by amending the referenced SIAPs. The complete regulatory description of each SIAP is listed on the appropriate FAA Form 8260, as modified by the National Flight Data Center (NFDC)/Permanent Notice to Airmen (P-NOTAM), and is incorporated by reference under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR 97.20. The large number of SIAPs, their complex nature, and the need for a special format make their verbatim publication in the **Federal Register** expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, but refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained on FAA form documents is unnecessary. This amendment provides the affected CFR sections, and specifies the SIAPs and Takeoff Minimums and ODPs with their applicable effective dates. This amendment also identifies the airport and its location, the procedure and the amendment number.

#### Availability and Summary of Material Incorporated by Reference

The material incorporated by reference is publicly available as listed in the **ADDRESSES** section.

The material incorporated by reference describes SIAPs, Takeoff Minimums and ODPs as identified in the amendatory language for Part 97 of this final rule.

#### The Rule

This amendment to 14 CFR part 97 is effective upon publication of each separate SIAP and Takeoff Minimums and ODP as amended in the transmittal. For safety and timeliness of change considerations, this amendment incorporates only specific changes contained for each SIAP and Takeoff Minimums and ODP as modified by FDC permanent NOTAMs.

The SIAPs and Takeoff Minimums and ODPs, as modified by FDC permanent NOTAM, and contained in this amendment are based on criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these changes to SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied only to specific conditions existing at the affected airports. All SIAP amendments in this rule have been previously issued by the FAA in a FDC NOTAM as an emergency action of immediate flight safety relating directly to published aeronautical charts.

The circumstances that created the need for these SIAP and Takeoff Minimums and ODP amendments require making them effective in less than 30 days.

Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedure under 5 U.S.C. 553(b) are impracticable and contrary to the public interest and, where applicable, under 5 U.S.C. 553(d), good cause exists for making these SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 97**

Air Traffic Control, Airports, Incorporation by reference, Navigation (Air).

Issued in Washington, DC, on April 28, 2023.

**Thomas J Nichols,**

*Manager, Aviation Safety, Flight Standards Service, Standards Section, Flight Procedures & Airspace Group, Flight Technologies & Procedures Division.*

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me, 14 CFR part

97 is amended by amending Standard Instrument Approach Procedures and Takeoff Minimums and ODPs, effective at 0901 UTC on the dates specified, as follows:

**PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES**

■ 1. The authority citation for part 97 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721–44722.

■ 2. Part 97 is amended to read as follows:

By amending: § 97.23 VOR, VOR/DME, VOR or TACAN, and VOR/DME or TACAN; § 97.25 LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME; § 97.27 NDB, NDB/DME; § 97.29 ILS, ILS/DME, MLS, MLS/DME, MLS/RNAV; § 97.31 RADAR SIAPs; § 97.33 RNAV SIAPs; and § 97.35 COPTER SIAPs, Identified as follows:

\* \* \* *Effective Upon Publication*

AIRAC date	State	City	Airport	FDC No.	FDC date	Subject
15-Jun-23 ...	HI	Kahului .....	Kahului .....	2/6251	3/21/2023	RNAV (RNP) Z RWY 2, Amdt 1A
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8573	4/13/2023	ILS OR LOC RWY 15, Amdt 5B
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8574	4/13/2023	ILS OR LOC RWY 24, Amdt 19A
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8576	4/13/2023	RNAV (GPS) RWY 6, Orig-C
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8577	4/13/2023	RNAV (GPS) RWY 15, Orig-D
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8578	4/13/2023	RNAV (GPS) RWY 33, Orig-D
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8580	4/13/2023	RNAV (GPS) RWY 24, Amdt 1B
15-Jun-23 ...	MA	Hyannis .....	Cape Cod Gateway .....	2/8581	4/13/2023	VOR RWY 6, Amdt 10A
15-Jun-23 ...	FL	Fernandina Beach .....	Fernandina Beach Muni ...	3/0147	2/27/2023	RNAV (GPS) RWY 4, Orig
15-Jun-23 ...	NY	Canandaigua .....	Canandaigua .....	3/0605	2/28/2023	VOR-A, Orig-B
15-Jun-23 ...	NY	Canandaigua .....	Canandaigua .....	3/0606	2/28/2023	RNAV (GPS) RWY 31, Amdt 1B
15-Jun-23 ...	NY	Canandaigua .....	Canandaigua .....	3/0608	2/28/2023	RNAV (GPS) RWY 13, Amdt 2A
15-Jun-23 ...	TX	Waco .....	McGregor Exec .....	3/0656	3/28/2023	RNAV (GPS) RWY 35, Amdt 1B
15-Jun-23 ...	TX	Waco .....	McGregor Exec .....	3/0658	3/28/2023	RNAV (GPS) RWY 17, Amdt 1B
15-Jun-23 ...	TX	Waco .....	McGregor Exec .....	3/0662	3/28/2023	VOR RWY 17, Amdt 11
15-Jun-23 ...	KS	Great Bend .....	Great Bend Muni .....	3/0838	3/13/2023	ILS OR LOC RWY 35, Orig-D
15-Jun-23 ...	TN	Rogersville .....	Hawkins County .....	3/0911	3/1/2023	RNAV (GPS) RWY 7, Orig
15-Jun-23 ...	MO	Fort Leonard Wood .....	Waynesville-St Robert Rgnl Forney Fld.	3/1658	2/7/2023	ILS OR LOC RWY 15, Amdt 2A
15-Jun-23 ...	VA	Saluda .....	Hummel Fld .....	3/1763	3/1/2023	Takeoff Minimums and Obstacle DP, Amdt 2
15-Jun-23 ...	FL	Palatka .....	Palatka Muni—Lt Kay Larkin Fld.	3/1975	4/17/2023	RNAV (GPS) RWY 27, Orig-C
15-Jun-23 ...	NC	Greensboro .....	Piedmont Triad Intl .....	3/2447	3/6/2023	RNAV (GPS) RWY 23R, Orig-D
15-Jun-23 ...	SC	Charleston .....	Charleston Exec .....	3/3226	3/6/2023	ILS OR LOC RWY 9, Amdt 2D
15-Jun-23 ...	AK	Fairbanks .....	Fairbanks Intl .....	3/3227	3/21/2023	RNAV (GPS) Y RWY 20R, Amdt 1D
15-Jun-23 ...	ND	Langdon .....	Robertson Fld .....	3/3936	3/29/2023	RNAV (GPS) RWY 32, Orig
15-Jun-23 ...	IL	Chicago/Rockford .....	Chicago/Rockford Intl .....	3/4972	4/5/2023	ILS OR LOC RWY 7, Amdt 2A
15-Jun-23 ...	MA	Falmouth .....	Cape Cod Coast Guard Air Station.	3/5067	2/14/2023	ILS Z OR LOC Z RWY 23, Amdt 2
15-Jun-23 ...	GA	Macon .....	Middle Georgia Rgnl .....	3/5240	2/14/2023	RNAV (GPS) RWY 32, Amdt 1D
15-Jun-23 ...	GA	Macon .....	Middle Georgia Rgnl .....	3/5244	2/14/2023	RNAV (GPS) RWY 14, Amdt 2D
15-Jun-23 ...	NC	Washington .....	Washington-Warren .....	3/5848	4/5/2023	RNAV (GPS) RWY 23, Amdt 1B
15-Jun-23 ...	AK	King Salmon .....	King Salmon .....	3/5870	4/6/2023	VOR Y OR TACAN Y RWY 30, Amdt 12
15-Jun-23 ...	IL	Springfield .....	Abraham Lincoln Capital ..	3/6048	3/21/2023	Takeoff Minimums and Obstacle DP, Orig
15-Jun-23 ...	CA	Corona .....	Corona Muni .....	3/6212	2/17/2023	Takeoff Minimums and Obstacle DP, Amdt 3
15-Jun-23 ...	OH	Hamilton .....	Butler County Rgnl/Hogan Fld.	3/6340	3/13/2023	RNAV (GPS) RWY 11, Amdt 1A
15-Jun-23 ...	WI	Milwaukee .....	Lawrence J Timmerman ..	3/6342	3/13/2023	LOC RWY 15L, Amdt 6E
15-Jun-23 ...	AR	Little Rock .....	Bill And Hillary Clinton Ntl/Adams Fld.	3/7372	3/24/2023	RNAV (GPS) RWY 4R, Amdt 1F
15-Jun-23 ...	AR	Little Rock .....	Bill And Hillary Clinton Ntl/Adams Fld.	3/7373	3/24/2023	VOR-A, Orig-D
15-Jun-23 ...	AR	Little Rock .....	Bill And Hillary Clinton Ntl/Adams Fld.	3/7374	3/24/2023	RNAV (GPS) RWY 36, Amdt 1
15-Jun-23 ...	OK	Stillwater .....	Stillwater Rgnl .....	3/7770	3/23/2023	RNAV (GPS) RWY 17, Amdt 1
15-Jun-23 ...	TN	Crossville .....	Crossville Meml-Whitson Fld.	3/8479	1/30/2023	ILS Y OR LOC Y RWY 26, Orig-D
15-Jun-23 ...	TN	Crossville .....	Crossville Meml-Whitson Fld.	3/8489	1/30/2023	ILS Z OR LOC Z RWY 26, Amdt 14D
15-Jun-23 ...	SC	Spartanburg .....	Spartanburg Downtown Meml/Simpson Fld.	3/9742	2/3/2023	ILS OR LOC RWY 5, Amdt 2

AIRAC date	State	City	Airport	FDC No.	FDC date	Subject
15-Jun-23 ...	SC	Spartanburg .....	Spartanburg Downtown Meml/Simpson Fld.	3/9743	2/3/2023	RNAV (GPS) RWY 5, Amdt 1
15-Jun-23 ...	TX	Waco .....	McGregor Exec .....	3/9769	3/28/2023	RADAR-1, Amdt 1A
15-Jun-23 ...	TX	Presidio .....	Presidio Lely Intl .....	3/9793	3/21/2023	RNAV (GPS)-A, Orig-A

[FR Doc. 2023-10941 Filed 5-22-23; 8:45 am]

BILLING CODE 4910-13-P

## SECURITIES AND EXCHANGE COMMISSION

### 17 CFR Part 249

[Release No. 34-97478]

### Technical Amendments to Form BD and Form BDW

**AGENCY:** Securities and Exchange Commission.

**ACTION:** Final rule; technical amendments.

**SUMMARY:** The Securities and Exchange Commission (“Commission”) is making technical amendments to Form BD and Form BDW, the uniform broker-dealer registration form and the uniform request for withdrawal from broker-dealer registration, respectively. The technical amendments will update the current list of self-regulatory organizations (“SROs”) and government jurisdictions listed on Form BD and Form BDW, and make conforming changes to the definition of “jurisdiction” in the forms.

**DATES:** *Effective Date:* May 23, 2023.

**FOR FURTHER INFORMATION CONTACT:** Emily Westerberg Russell, Chief Counsel, Joanne Rutkowski, Assistant Chief Counsel, Denise Landers, Senior Special Counsel, or Bonnie Gauch, Senior Special Counsel, at (202) 551-5550, Office of the Chief Counsel, Division of Trading and Markets, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

**SUPPLEMENTARY INFORMATION:** Form BD requires an applicant, or registrant, to indicate the SRO and governmental jurisdiction with which it is registering or registered. For a “partial withdrawal,”<sup>1</sup> Form BDW requires the applicant to specify the SRO and governmental jurisdiction from which it is withdrawing.<sup>2</sup> The Commission is

making technical amendments to Item 2 of Form BD and Item 3 of Form BDW to update the list of governmental jurisdictions to include Guam, and to update the list of SROs to reflect the registrations of new national securities exchanges or the business combinations and resulting name changes of existing SROs since the last update of Form BD and Form BDW. More specifically, we are updating the list of SROs to reflect these changes to: BOX Exchange LLC (BOX),<sup>3</sup> Cboe Exchange, Inc. (CBOE),<sup>4</sup> Cboe BYX Exchange, Inc. (Cboe BYX),<sup>5</sup> Cboe BZX Exchange, Inc. (Cboe BZX),<sup>6</sup>

can register and withdraw from registration under procedures developed by the Commission. Exchange Act Rule 15b1-1 requires that an application for registration of a broker or dealer that is filed pursuant to Section 15(b) of the Exchange Act be filed on Form BD in accordance with the instructions on the form. Exchange Act Rule 15b6-1 requires that a notice of withdrawal from registration as a broker or dealer filed pursuant to Section 15(b) of the Exchange Act be filed on Form BDW in accordance with the instructions on the form. See 15 U.S.C. 78o; 17 CFR 240.15b1-1 and 15b6-1. See also, Form BD and Form BDW 17 CFR 249.501 and 501a.

<sup>3</sup> Exchange Act Release No. 83941 (Aug. 24, 2018), 83 FR 44320 (Aug. 30, 2018) (concerning name change from BOX Options Exchange LLC to BOX Exchange LLC); Exchange Act Release No. 66871 (Apr. 27, 2012), 77 FR 26323 (May 3, 2012) (approving BOX Options Exchange LLC application for registration as a national securities exchange).

<sup>4</sup> Exchange Act Release No. 81981 (Oct. 30, 2017), 82 FR 51309 (Nov. 3, 2017) (concerning name change from Chicago Board Options Exchange, Incorporated to Cboe Exchange, Inc.).

<sup>5</sup> Exchange Act Release No. 81952 (Oct. 26, 2017), 82 FR 50725 (Nov. 1, 2017) (concerning name change from Bats BYX Exchange, Inc. to Cboe BYX Exchange, Inc.); Exchange Act Release No. 79585 (Dec. 16, 2016), 81 FR 93988 (Dec. 22, 2016) (approving proposed rule change in connection with a corporate transaction involving Bats Global Markets, Inc. and CBOE Holdings, Inc.); Exchange Act Release No. 77308 (Mar. 7, 2016), 81 FR 12975 (Mar. 11, 2016) (concerning name change from BATS Y-Exchange, Inc. to Bats BYX Exchange, Inc.); Exchange Act Release No. 62716 (Aug. 13, 2010), 75 FR 51295 (Aug. 19, 2010) (approving BATS Y-Exchange, Inc. application for registration as a national securities exchange).

<sup>6</sup> Exchange Act Release No. 81962 (Oct. 26, 2017), 82 FR 50711 (Nov. 1, 2017) (concerning name change from Bats BZX Exchange, Inc. to Cboe BZX Exchange, Inc.); Exchange Act Release No. 79585 (Dec. 16, 2016), 81 FR 93988 (Dec. 22, 2016) (approving proposed rule change in connection with a corporate transaction involving Bats Global Markets, Inc. and CBOE Holdings, Inc.); Exchange Act Release No. 77307 (Mar. 7, 2016), 81 FR 12996 (Mar. 11, 2016) (concerning name change from BATS Y-Exchange, Inc. to Bats BZX Exchange, Inc.); Exchange Act Release No. 58375 (Aug. 18, 2008), 73 FR 49498 (Aug. 21, 2008) (approving BATS Exchange, Inc. application for registration as a national securities exchange).

Cboe C2 Exchange, Inc. (C2),<sup>7</sup> Cboe EDGA Exchange, Inc. (Cboe EDGA),<sup>8</sup> Cboe EDGX Exchange, Inc. (Cboe EDGX),<sup>9</sup> Investors Exchange LLC (IEX),<sup>10</sup> Long-Term Stock Exchange, Inc. (LTSE),<sup>11</sup> Nasdaq BX, Inc. (BX),<sup>12</sup> Nasdaq GEMX, LLC (GEMX),<sup>13</sup> Nasdaq

<sup>7</sup> Exchange Act Release No. 81979 (Oct. 30, 2017), 82 FR 51317 (Nov. 3, 2017) (concerning name change from C2 Options Exchange, Incorporated to Cboe C2 Exchange, Inc.); Exchange Act Release No. 61152 (Dec. 10, 2009), 74 FR 66699 (Dec. 16, 2009) (approving C2 Options Exchange, Incorporated application for registration as a national securities exchange).

<sup>8</sup> Exchange Act Release No. 81957 (Oct. 26, 2017), 82 FR 50716 (Nov. 1, 2017) (concerning name change from Bats EDGA Exchange, Inc. to Cboe EDGA Exchange, Inc.); Exchange Act Release No. 79585 (Dec. 16, 2016), 81 FR 93988 (Dec. 22, 2016) (approving proposed rule change in connection with a corporate transaction involving Bats Global Markets, Inc. and CBOE Holdings, Inc.); Exchange Act Release No. 77299 (Mar. 4, 2016), 81 FR 12759 (Mar. 10, 2016) (concerning name change from EDGA Exchange, Inc. to Bats EDGA Exchange, Inc.); Exchange Act Release No. 61698 (Mar. 12, 2010), 75 FR 13151 (Mar. 18, 2010) (approving EDGX Exchange, Inc. and EDGA Exchange, Inc. applications for registration as national securities exchanges).

<sup>9</sup> Exchange Act Release No. 81963 (Oct. 26, 2017), 82 FR 50697 (Nov. 1, 2017) (concerning name change from Bats EDGX Exchange, Inc. to Cboe EDGX Exchange, Inc.); Exchange Act Release No. 79585 (Dec. 16, 2016), 81 FR 93988 (Dec. 22, 2016) (approving proposed rule change in connection with a corporate transaction involving Bats Global Markets, Inc. and CBOE Holdings, Inc.); Exchange Act Release No. 77298 (Mar. 4, 2016), 81 FR 12757 (Mar. 10, 2016) (concerning name change from EDGX Exchange, Inc. to Bats EDGX Exchange, Inc.); Exchange Act Release No. 61698 (Mar. 12, 2010), 75 FR 13151 (Mar. 18, 2010) (approving EDGX Exchange, Inc. and EDGA Exchange, Inc. applications for registration as national securities exchanges).

<sup>10</sup> Exchange Act Release No. 78101 (June 17, 2016), 81 FR 41141 (June 23, 2016) (approving Investors Exchange LLC registration as a national securities exchange).

<sup>11</sup> Exchange Act Release No. 85828 (May 10, 2019), 84 FR 21841 (May 15, 2019) (approving Long-Term Stock Exchange, Inc. registration as a national securities exchange).

<sup>12</sup> Exchange Act Release No. 81948 (Oct. 25, 2017), 82 FR 50468 (Oct. 31, 2017) (concerning name change from NASDAQ BX, Inc. to Nasdaq BX, Inc.); Exchange Act Release No. 76656 (Dec. 15, 2015), 80 FR 79381 (Dec. 21, 2015) (concerning name change from NASDAQ OMX BX, Inc. to NASDAQ BX, Inc.); Exchange Act Release No. 60358 (July 21, 2009), 74 FR 37277 (July 28, 2009) (concerning name change from the Boston Stock Exchange, Inc. to NASDAQ OMX BX, Inc.); Exchange Act Release No. 58324 (Aug. 7, 2008), 73 FR 46936 (Aug. 12, 2008) (approving proposed rule change in connection with the acquisition of the Boston Stock Exchange, Inc. by The NASDAQ OMX Group, Inc.).

<sup>13</sup> Exchange Act Release No. 80248 (Mar. 15, 2017), 82 FR 14547 (Mar. 21, 2017) (concerning

<sup>1</sup> A “full withdrawal” terminates registration with the Commission, all SROs, and all jurisdictions. However, a “partial withdrawal” terminates registration with specific jurisdictions and SROs, but does not terminate registration with the Commission and at least one SRO and jurisdiction.

<sup>2</sup> Section 15(b) of the Securities Exchange Act of 1934 (“Exchange Act”) provides that broker-dealers

ISE, LLC (ISE),<sup>14</sup> Nasdaq MRX, LLC (MRX),<sup>15</sup> Nasdaq PHLX LLC (PHLX),<sup>16</sup> The Nasdaq Stock Market LLC (NASDAQ),<sup>17</sup> NYSE American LLC (NYSE AMER),<sup>18</sup> NYSE Chicago, Inc.

name change from ISE Gemini, LLC to Nasdaq GEMX, LLC); Exchange Act Release No. 71586 (Feb. 20, 2014), 79 FR 10861 (Feb. 26, 2014) (concerning name change from Topaz Exchange, LLC to ISE Gemini, LLC); Exchange Act Release No. 70050 (July 26, 2013), 78 FR 46622 (Aug. 1, 2013) (approving Topaz Exchange, LLC application for registration as a national securities exchange).

<sup>14</sup> Exchange Act Release No. 80325 (Mar. 29, 2017), 82 FR 16445 (Apr. 4, 2017) (concerning name change from International Securities Exchange, LLC to Nasdaq ISE, LLC).

<sup>15</sup> Exchange Act Release No. 80326 (Mar. 29, 2017), 82 FR 16460 (Apr. 4, 2017) (concerning name change from ISE Mercury, LLC to Nasdaq MRX, LLC); Exchange Act Release No. 76998 (Jan. 29, 2016), 81 FR 6066 (Feb. 4, 2016) (approving ISE Mercury, LLC application for registration as a national securities exchange).

<sup>16</sup> Exchange Act Release No. 81938 (Oct. 24, 2017), 82 FR 50185 (Oct. 30, 2017) (concerning name change from NASDAQ PHLX LLC to Nasdaq PHLX LLC); Exchange Act Release No. 76654 (Dec. 15, 2015), 80 FR 79396 (Dec. 21, 2015) (concerning name change from NASDAQ OMX PHLX LLC to NASDAQ PHLX LLC); Exchange Act Release No. 62783 (Aug. 27, 2010), 75 FR 54204 (Sept. 3, 2010) (concerning the conversion of NASDAQ OMX PHLX, Inc. to a limited liability company); Exchange Act Release No. 58380 (Aug. 18, 2008), 73 FR 49728 (Aug. 22, 2008) (concerning name change from the Philadelphia Stock Exchange, Inc. to NASDAQ OMX PHLX, Inc.); Exchange Act Release No. 58179 (July 17, 2008), 73 FR 42874 (July 23, 2008) (approving proposed rule change in connection with the acquisition of the Philadelphia Stock Exchange, Inc. by The NASDAQ OMX Group, Inc.).

<sup>17</sup> Exchange Act Release No. 81917 (Oct. 23, 2017), 82 FR 49879 (Oct. 27, 2017) (concerning name change from The NASDAQ Stock Market LLC to The Nasdaq Stock Market LLC).

<sup>18</sup> Exchange Act Release No. 80283 (Mar. 21, 2017), 82 FR 15244 (Mar. 27, 2017) (concerning name change from NYSE MKT LLC to NYSE American LLC); Exchange Act Release No. 67037 (May 21, 2012), 77 FR 31415 (May 25, 2012) (concerning name change from NYSE Amex LLC to NYSE MKT LLC); Exchange Act Release No. 59575 (Mar. 13, 2009), 74 FR 11803 (Mar. 19, 2009) (concerning name change from NYSE Alternext US LLC to NYSE Amex LLC); Exchange Act Release No. 58673 (Sept. 29, 2008), 73 FR 57707 (Oct. 3, 2008) (approving proposed rule change in connection with the acquisition of American Stock Exchange

(NYSE CHX),<sup>19</sup> NYSE National, Inc. (NYSE NAT),<sup>20</sup> Miami International Securities Exchange, LLC (MIAX),<sup>21</sup> MIAX EMERALD, LLC (EMERALD),<sup>22</sup> MIAX PEARL, LLC (PEARL),<sup>23</sup> and MEMX LLC (MEMX).<sup>24</sup>

In addition, we are making conforming changes to the definition of “jurisdiction” to include Guam, a United States territory. “Jurisdiction” will be defined as: “A state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, or any subdivision or regulatory body thereof.”

#### List of Subjects in 17 CFR Part 249

Broker-dealers, reporting and recordkeeping requirements, Securities.

#### Statutory Authority

We are adopting the technical amendments to Forms BD and BDW under the authority set forth in the

LLC by NYSE Euronext and renaming as NYSE Alternext US LLC).

<sup>19</sup> Exchange Act Release No. 84494 (Oct. 26, 2018), 83 FR 54953 (Nov. 1, 2018) (concerning name change from the Chicago Stock Exchange, Inc. to NYSE Chicago, Inc.); Exchange Act Release No. 83635 (July 13, 2018), 83 FR 34182 (July 19, 2018) (approving proposed rule change in connection with the indirect acquisition of the Chicago Stock Exchange, Inc. by NYSE Group, Inc.).

<sup>20</sup> Exchange Act Release No. 79902 (Jan. 30, 2017), 82 FR 9258 (Feb. 3, 2017) (approving proposed rule change in connection with National Stock Exchange, Inc.’s acquisition by NYSE Group, Inc. and renaming as NYSE National, Inc.).

<sup>21</sup> Exchange Act Release No. Release No. 68341 (Dec. 3, 2012), 77 FR 73065 (Dec. 7, 2012) (approving Miami International Securities Exchange, LLC application for registration as a national securities exchange).

<sup>22</sup> Exchange Act Release No. 84891 (Dec. 20, 2018), 83 FR 67421 (Dec. 28, 2018) (approving MIAX EMERALD, LLC application for registration as a national securities exchange).

<sup>23</sup> Exchange Act Release No. 79543 (Dec. 13, 2016), 81 FR 92901 (Dec. 20, 2016); (approving MIAX PEARL, LLC application for registration as a national securities exchange).

<sup>24</sup> Exchange Act Release No. 88806 (May 4, 2020), 85 FR 27451 (May 8, 2020) (approving MEMX LLC application for registration as a national securities exchange).

Exchange Act and, in particular, Sections 15(a), 15(b), 17(a), and 23(a) therein.<sup>25</sup>

#### Text of Amendments

For the reasons set out in the preamble, 17 CFR part 249 is amended as follows:

#### PART 249—FORMS, SECURITIES EXCHANGE ACT OF 1934

■ 1. The general authority citation for part 249 continues to read as follows:

**Authority:** 15 U.S.C. 78a *et seq.* and 7201 *et seq.*; 12 U.S.C. 5461 *et seq.*; 18 U.S.C. 1350; Sec. 953(b) Pub. L. 111–203, 124 Stat. 1904; Sec. 102(a)(3) Pub. L. 112–106, 126 Stat. 309 (2012), Sec. 107 Pub. L. 112–106, 126 Stat. 313 (2012), Sec. 72001 Pub. L. 114–94, 129 Stat. 1312 (2015), and secs. 2 and 3 Pub. L. 116–222, 134 Stat. 1063 (2020), unless otherwise noted.

\* \* \* \* \*

■ 2. Form BD (referenced in § 249.501) is amended by:

■ a. In the Explanation of Terms, 1. General section, removing the words “JURISDICTION—A state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, or any subdivision or regulatory body thereof.” and add, in their place, the words “JURISDICTION—A state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, or any subdivision or regulatory body thereof.”; and

■ b. In Item 2, revising the SRO and Jurisdiction tables.

The revisions read as follows:

**Note:** The text of Form BD does not, and the amendments will not, appear in the Code of Federal Regulations.

#### Form BD

\* \* \* \* \*

2. \* \* \*

<sup>25</sup> 15 U.S.C. 78o(a), 78o(b), 78q(a), and 78w(a).

S R O S	FINRA	NYSE	NYSE AMER	NYSE ARCA	NYSE CHX	NYSE NAT	NASDAQ	C2	CBOE	CBOE BYX	CBOE BZX	CBOE EDGA	CBOE EDGX	BX	ISE	GEMX	MRX	PHLX	EMERALD	MIAX	PEARL	BOX	IEX	LTSE	MEMX	OTHER (specify)				
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\* \* \* \* \*

■ 3. Form BDW (referenced in § 249.501a) is amended by:

■ a. In the Explanation of Terms section, removing the words “The term JURISDICTION means a state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, or any subdivision or

regulatory body thereof.” and adding, in their place, the words “The term JURISDICTION means a state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, or any subdivision or regulatory body thereof.”; and  
 ■ b. In Item 3, revising the SRO and Jurisdiction tables.

The revisions read as follows:

**Note:** The text of Form BDW does not, and the amendments will not, appear in the Code of Federal Regulations.

**Form BDW**

\* \* \* \* \*  
 3. \* \* \*



S O R S	FINRA	NYSE	NYSE AMER	NYSE ARCA	NYSE CHX	NYSE NAT	NASDAQ	C2	CBOE	CBOE BYX	CBOE BZX	CBOE EDGA	CBOE EDGX	BX	ISE	GEMX	MRX	PHLX	EMERALD	MIAX	PEARL	BOX	IEX	LTSE	MEMX	OTHER (specify)				
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\* \* \* \* \*

Dated: May 11, 2023.

**J. Matthew DeLesDernier,**  
Deputy Secretary.

[FR Doc. 2023-10442 Filed 5-22-23; 8:45 am]

BILLING CODE 8011-01-P

**DEPARTMENT OF HOMELAND SECURITY**

**Coast Guard**

**33 CFR Part 165**

[Docket Number USCG-2023-0204]

RIN 1625-AA00

**Safety Zone; Fireworks Display, Umatilla Marina, Umatilla, OR**

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

**SUMMARY:** The Coast Guard is establishing a temporary safety zone for certain waters of Umatilla Marina. This action is necessary to provide for the

safety of life on these navigable waters near Umatilla, OR, during a fireworks display on June 24th, 2023. This regulation prohibits persons and vessels from being in the safety zone unless authorized by the Captain of the Port Columbia River or a designated representative.

**DATES:** This rule is effective from 9:30 to 11 p.m. on June 24, 2023.

**ADDRESSES:** To view documents mentioned in this preamble as being available in the docket, go to <https://www.regulations.gov>, type USCG-2023-0204 in the search box and click "Search." Next, in the Document Type column, select "Supporting & Related Material."

**FOR FURTHER INFORMATION CONTACT:** If you have questions about this proposed rulemaking, call or email LT Carlie Gilligan, Waterways Management Division, Sector Columbia River, Coast Guard; telephone 503-240-9319, email [D13-SMB-MSUPortlandWWM@uscg.mil](mailto:D13-SMB-MSUPortlandWWM@uscg.mil).

**SUPPLEMENTARY INFORMATION:**

**I. Table of Abbreviations**

- CFR Code of Federal Regulations
- COTP Captain of the Port Columbia River
- DHS Department of Homeland Security
- FR Federal Register
- NPRM Notice of proposed rulemaking
- § Section
- U.S.C. United States Code

**II. Background Information and Regulatory History**

On February 2, 2023, Western Display Fireworks, LTD notified the Coast Guard that it will be conducting a fireworks display from 10 to 10:30 p.m. on June 24, 2023. The fireworks are to be launched from a site on land in the Umatilla Marina, OR. Hazards from firework displays include accidental discharge of fireworks, dangerous projectiles, and falling hot embers or other debris. The Captain of the Port Columbia River (COTP) has determined that potential hazards associated with the fireworks would be a safety concern for anyone within a 400-foot radius of the launch site before, during, or after the fireworks display.

In response, on March 27, 2023, the Coast Guard published a notice of proposed rulemaking (NPRM) titled Safety Zone; Fireworks Display, Umatilla Marina, Umatilla, OR (88 FR 18278). There we stated why we issued the NPRM and invited comments on our proposed regulatory action related to this fireworks display. During the comment period that ended March 27, 2023, we received no comments.

### III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1321). The Captain of the Port Columbia River (COTP) has determined that potential hazards associated with the fireworks to be used in this June 24, 2023 display will be a safety concern for anyone within a 400-foot radius of the barge. The purpose of this rule is to ensure safety of vessels and the navigable waters in the safety zone before, during, and after the scheduled event.

### IV. Discussion of Comments, Changes, and the Rule

As noted above, we received no comments on our NPRM published March 27, 2023. There are no changes in the regulatory text of this rule from the proposed rule in the NPRM.

This rule establishes a safety zone from 9:30 to 11 p.m. on June 24, 2023. The safety zone will cover all navigable waters within 400 feet of the launch site located at approximately 45°55'37.50" N 119°19'47.60" W in the Umatilla Marina, Oregon. The duration of the zone is intended to ensure the safety of vessels and these navigable waters before, during, and after the scheduled 10 to 10:30 p.m. fireworks display. No vessel or person is permitted to enter the safety zone without obtaining permission from the COTP or a designated representative.

### V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

#### A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a "significant regulatory action," under Executive Order 12866. Accordingly,

this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, and duration of the safety zone. The safety zone created by this rule is designed to minimize its impact on navigable waters. The safety zone will impact approximately a 400 foot area of Umatilla Marina and will not exceed 1.5 hours in duration. Thus, restrictions on vessel movement within that area will be minimal. Moreover, under certain conditions vessels may still transit through the safety zone when permitted by the COTP. The Coast Guard will issue a Notice to Mariners about the zone, and the rule allows vessels to seek permission to enter the zone.

#### B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard received no comments from the Small Business Administration on this rulemaking. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule affects your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's

responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

#### C. Collection of Information

This rule does not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

#### D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have Tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes.

#### E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

#### F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not

individually or cumulatively have a significant effect on the human environment. This rule involves a safety zone that will be enforced for 1.5 hours that will prohibit entry within 400 feet of a fireworks launch site. It is categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023-01-001-01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

### G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

### List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard is amending 33 CFR part 165 as follows:

## PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

**Authority:** 46 U.S.C. 70034, 70051, 70124; 33 CFR 1.05-1, 6.04-1, 6.04-6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.3.

■ 2. Add § 165.T13-0204 to read as follows:

### § 165.T13-0204 Safety Zone; Fireworks Display, Umatilla Marina, Umatilla, OR.

(a) *Location.* The following area is a safety zone: All navigable waters within 400 feet of a fireworks launch site in Umatilla, OR. The fireworks launch site will be at the approximate point of 45°55'37.50" N 119°19'47.60" W.

(b) *Definitions.* As used in this section—

*Designated representative* means a Coast Guard Patrol Commander, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Columbia River (COTP) in the enforcement of the safety zone.

*Participant* means all persons and vessels registered with the event

sponsor as a participant in the fireworks display.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, all non-participants may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative by calling (503) 209-2468 or the Sector Columbia River Command Center on Channel 16 VHF-FM. Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP's designated representative.

(3) The COTP will provide notice of the regulated area through advanced notice via broadcast notice to mariners and by on-scene designated representatives.

(d) *Enforcement period.* This section will be enforced from 9:30 to 11 p.m. on June 24, 2023. It will be subject to enforcement this entire period unless the COTP determines it is no longer needed, in which case the Coast Guard will inform mariners via Notice to Mariners.

Dated: May 16, 2023.

**M. Scott Jackson,**

*Captain, U.S. Coast Guard, Captain of the Port, Sector Columbia River.*

[FR Doc. 2023-10887 Filed 5-22-23; 8:45 am]

**BILLING CODE 9110-04-P**

## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

### 33 CFR Part 165

[USCG-2023-0059]

RIN 1625-AA11

### Regulated Navigation Area; Hampton Roads, VA

**AGENCY:** Coast Guard, DHS.

**ACTION:** Final rule.

**SUMMARY:** The Coast Guard is amending the Chesapeake Bay entrance and Hampton Roads, VA and adjacent waters—Regulated Navigation Area. Officially codified in 2003, the need for this review and update of the Regulated Navigation Area has been prompted by changes in the organizational structure, responsibilities and shipboard requirements over the last 20 years. The Coast Guard is removing outdated or redundant language and requirements, including those related to port security. This action will provide administrative

changes and amend vessel reporting requirements operating within the Regulated Navigation Area during Maritime Security Level 1.

**DATES:** This rule is effective June 22, 2023.

**ADDRESSES:** To view documents mentioned in this preamble as being available in the docket, go to <https://www.regulations.gov>, type USCG-2023-0059 in the search box and click "Search." Next, in the Document Type column, select "Supporting & Related Material."

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this rule, call or email LCDR Ashley Holm, Sector Virginia Waterways Management Division, U.S. Coast Guard; telephone 757-668-5581, email [Ashley.E.Holm@uscg.mil](mailto:Ashley.E.Holm@uscg.mil).

### SUPPLEMENTARY INFORMATION:

#### I. Table of Abbreviations

AIS Automatic Identification System  
 CFR Code of Federal Regulations  
 DHS Department of Homeland Security  
 FR Federal Register  
 JEBLCFS Joint Expeditionary Base Little Creek-Fort Story  
 JHOC Joint Harbor Operations Center  
 MARSEC US Coast Guard Maritime Security Level  
 NPRM Notice of proposed rulemaking  
 § Section  
 PWSA Ports and Waterways Safety Act  
 RNA Regulated Navigation Area  
 U.S.C. United States Code  
 USCG United States Coast Guard

#### II. Background Information and Regulatory History

The Chesapeake Bay entrance and Hampton Roads, VA and adjacent waters—Regulated Navigation Area (RNA) was established on June 12, 2003, following the terrorist attacks on September 11, 2001. The U.S. Coast Guard utilized its authority through the Port and Waterways Safety Act (PWSA) to urgently establish RNAs in many of the major ports throughout the United States to control vessel traffic within a port by specifying times of vessel entry, movement, or departure to, from, within, or through ports, harbors, or other waters. The Chesapeake Bay entrance and Hampton Roads, VA and adjacent waters—Regulated Navigation Area was first codified as a final rule in 68 FR 35172 (June 15, 2003) and was reformatted in 72 FR 17409 (April 9, 2007). Since the implementation of the RNA, the Captain of the Port Virginia has had the responsibility and the authority to control vessels within the RNA to protect port infrastructure, port security, and the safety of the waterway.

In the twenty years since the establishment of this RNA, updates to Coast Guard nomenclature and port security requirements have made language in this RNA obsolete.

In response, on March 14, 2023, the Coast Guard published a notice of proposed rulemaking (NPRM) titled *Regulated Navigation Area; Hampton Roads, VA* (FR 04864). There, we stated why we issued the NPRM, and invited comments on our proposed regulatory action related to this RNA update. During the comment period that ended April 13, 2023, we received no comments.

### III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70041 (previously 33 U.S.C. 1231). The Captain of the Port Virginia (COTP) has determined the need to remove outdated or redundant language and requirements to make the rule easier to comply with and understand.

### IV. Discussion of Comments, Changes, and the Rule

As noted above, we received no comments on our NPRM published March 14, 2023. There are no changes in the regulatory text of this rule from the proposed rule in the NPRM.

This rule will make administrative revisions to update certain names and language as well as amend port security requirements. Below we provide a description and reasoning for each revision being made. All other sections not mentioned shall remain unchanged.

#### 33 CFR 165.501(b)—Definitions

The Coast Guard is revising the definition for *Designated representative of the Captain of the Port* in paragraph (b) of 33 CFR 165.501 to no longer include “Joint Harbor Operations Center Watchstander.” Previously, assigned active-duty Navy sailors worked within the Sector Virginia Command Center, formerly called the Joint Harbor Operations Center (JHOC). In 2010, the JHOC was disestablished.

#### 33 CFR 165.501(c)—Applicability

The Coast Guard is expanding the exemption in paragraph (c) to include vessels engaged in “search and rescue” operations. Following the requirements of this rule is impracticable for these type of operations, as they would impede or slow operations thus hindering the chances of a successful rescue.

#### 33 CFR 165.501(d)—Regulations

The Coast Guard is updating paragraph (d) to reflect name changes in

Naval Commands located within the RNA. In paragraph (d)(1)(iii), “Commander, Naval Amphibious Base Little Creek” is now named, “Commander, Joint Expeditionary Base Little Creek-Fort Story (JEBLCFS).” The Joint Expeditionary Base is comprised of the former Naval Amphibious Base Little Creek and the Army Post of Fort Story, which were merged under a single command on October 1, 2009.

In paragraph (d)(6), the requirement for ‘navigational charts’ is removed as this is redundant to vessel requirements already enforced by in 33 CFR 164.33.

In paragraph (d)(9), the stipulation is added so that the paragraph only applies when the Commandant or Captain of the Port sets MARSEC level 2 or 3. The requirements of this provision are no longer necessary at MARSEC level 1 as a result of current Automatic Identification System (AIS) carriage regulations and Notice of Arrival regulations enforced by 33 CFR Subpart C. The requirements are still in effect during times of heightened security and have been modified to reflect such.

The removal of paragraph (d)(9)(ii) is necessary as this requirement is redundant to the regulations found in 33 CFR Subchapter H, Maritime Security and conflicts with established regulations governing other Federal Agencies. In paragraph (d)(9)(iv), “Joint Harbor Operations Center” has been removed as it has since been disestablished.

Finally, language in paragraph (f)(1) is amended to give the Captain of the Port maximum authority and discretion permitted by law to order the movement of a vessel or vessels out of concern for all hazards, whether safety or security in nature: prohibit entry, restrict or direct movement within, or order departure from the RNA. This will allow the Coast Guard to readily fulfil its role of public and port safety during emergent situations within the RNA.

### V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

#### A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a

“significant regulatory action,” under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the reasoning that this rule makes only minor amendments to an established rule and does not alter its original intent or purpose. The revisions here will not significantly change the requirements or behavior of vessels in the RNA and would have little to no economic impact.

#### B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard received no comments from the Small Business Administration on this rulemaking. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the RNA may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency’s responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain

about this rule or any policy or action of the Coast Guard.

### C. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

### D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

### E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

### F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves minor administrative amendments to the text of the existing Hampton Roads RNA. The revisions made in this rule making

would not significantly, if at all, differ from the present impact the Hampton Roads RNA has on the environment which was determined to be not significantly impactful. It is categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

### G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

### List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

## PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

**Authority:** 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.3.

■ 2. Revise § 165.501 to read as follows:

### § 165.501 Chesapeake Bay entrance and Hampton Roads, VA and adjacent waters—Regulated Navigation Area.

(a) *Location.* The waters enclosed by the shoreline and the following lines are a Regulated Navigation Area:

(1) *Offshore Zone.* A line drawn due East from the mean low water mark at the North Carolina and Virginia border at latitude 36°33'03" N, longitude 75°52'00" W, to the Territorial Seas boundary line at latitude 36°33'05" N, longitude 75°36'51" W, thence generally Northeastward along the Territorial Seas boundary line to latitude 38°01'39" N, longitude 74°57'18" W, thence due West to the mean low water mark at the Maryland and Virginia border at latitude 38°01'39" N, longitude 75°14'30" W, thence South along the mean low water mark on the Virginia coast, and eastward of the Colregs Demarcation Lines across Chincoteague Inlet,

Assawoman Inlet, Gargathy Inlet, Metompkin Inlet, Wachapreague Inlet, Quinby Inlet, Great Machipongo Inlet, Sand Shoal Inlet, New Inlet, Ship Shoal Inlet and Little Inlet, to the Colregs Demarcation Line across the mouth of Chesapeake Bay, continuing south along the Virginia low water mark and eastward of the Colregs Demarcation Line across Rudee Inlet to the point of beginning. All positions reference NAD 83.

(2) *Inland zone.* The waters enclosed by the shoreline and the following lines:

(i) A line drawn across the entrance to Chesapeake Bay between Wise Point and Cape Charles Light, and then continuing to Cape Henry Light.

(ii) A line drawn across the Chesapeake Bay between Old Point Comfort Light and Cape Charles City Range "A" Rear Light.

(iii) A line drawn across the James River along the eastern side of U.S. Route 17 highway bridge, between Newport News and Isle of Wight County, Virginia.

(iv) A line drawn across Chuckatuck Creek along the northern side of the north span of the U.S. Route 17 highway bridge, between Isle of Wight County and Suffolk, Virginia.

(v) A line drawn across the Nansemond River along the northern side of the Mills Godwin (U.S. Route 17) Bridge, Suffolk, Virginia.

(vi) A line drawn across the mouth of Bennetts Creek, Suffolk, Virginia.

(vii) A line drawn across the Western Branch of the Elizabeth River along the eastern side of the West Norfolk Bridge, Portsmouth, Virginia.

(viii) A line drawn across the Southern Branch of the Elizabeth River along the northern side of the I–64 highway bridge, Chesapeake, Virginia.

(ix) A line drawn across the Eastern Branch of the Elizabeth River along the western side of the west span of the Campostella Bridge, Norfolk, Virginia.

(x) A line drawn across the Lafayette River along the western side of the Hampton Boulevard Bridge, Norfolk, Virginia.

(xi) A line drawn across Little Creek along the eastern side of the Ocean View Avenue (U.S. Route 60) Bridge, Norfolk, Virginia.

(xii) A line drawn across Lynnhaven Inlet along the northern side of Shore Drive (U.S. Route 60) Bridge, Norfolk, Virginia.

(b) *Definitions.* In this section:

*CBBT* means the Chesapeake Bay Bridge Tunnel.

*Coast Guard Patrol Commander* is a Coast Guard commissioned, warrant or petty officer who has been designated by the Commander, Coast Guard Sector Virginia.

*Designated representative of the Captain of the Port* means a person, including the command duty officer at Coast Guard Sector Virginia or the Coast Guard or Navy Patrol Commander who has been authorized by the Captain of the Port to act on his or her behalf and at his or her request to carry out such orders and directions as needed. All patrol vessels shall display the Coast Guard Ensign at all times when underway.

*I-664 Bridge Tunnel* means the Monitor Merrimac Bridge Tunnel.

*Inland waters* means waters within the COLREGS Line of Demarcation.

*Thimble Shoal Channel* consists of the waters bounded by a line connecting Thimble Shoal Channel Lighted Bell Buoy 1TS, thence to Thimble Shoal Lighted Gong Buoy 17, thence to Thimble Shoal Lighted Buoy 19, thence to Thimble Shoal Lighted Buoy 21, thence to Thimble Shoal Lighted Buoy 22, thence to Thimble Shoal Lighted Buoy 18, thence to Thimble Shoal Lighted Buoy 2, thence to the beginning.

*Thimble Shoal North Auxiliary Channel* consists of the waters in a rectangular area 450 feet wide adjacent to the north side of Thimble Shoal Channel, the southern boundary of which extends from Thimble Shoal Channel Lighted Buoy 2 to Thimble Shoal Lighted Buoy 18.

*Thimble Shoal South Auxiliary Channel* consists of the waters in a rectangular area 450 feet wide adjacent to the south side of Thimble Shoal Channel, the northern boundary of which extends from Thimble Shoal Channel Lighted Bell Buoy 1TS, thence to Thimble Shoal Lighted Gong Buoy 17, thence to Thimble Shoal Lighted Buoy 19, thence to Thimble Shoal Lighted Buoy 21.

(c) *Applicability.* This section applies to all vessels operating within the Regulated Navigation Area, including naval and public vessels, except vessels that are engaged in the following operations:

- (1) Law enforcement.
- (2) Search and rescue.
- (3) Servicing aids to navigation.
- (4) Surveying, maintenance, or improvement of waters in the Regulated Navigation Area.

(d) *Regulations.* (1) *Anchoring restrictions.* No vessel over 65 feet long may anchor or moor in the inland waters of the Regulated Navigation Area outside an anchorage designated in § 110.168 of this title, with these exceptions:

- (i) The vessel has the permission of the Captain of the Port.
- (ii) Only in an emergency, when unable to proceed without endangering

the safety of persons, property, or the environment, may a vessel anchor in a channel.

(iii) A vessel may not anchor within the confines of Little Creek Harbor, Desert Cove, or Little Creek Cove without the permission of the Captain of the Port or designated representative. The Captain of the Port shall consult with the Commander, Joint Expeditionary Base Little Creek-Fort Story, before granting permission to anchor within this area.

(2) *Anchoring detail requirements.* A self-propelled vessel over 100 gross tons, which is equipped with an anchor or anchors (other than a tugboat equipped with bow fenderwork of a type of construction that prevents an anchor being rigged for quick release), that is underway within two nautical miles of the CBBT or the I-664 Bridge Tunnel shall station its personnel at locations on the vessel from which they can anchor the vessel without delay in an emergency.

(3) *Secondary towing rig requirements on inland waters.* (i) A vessel over 100 gross tons may not be towed in the inland waters of the Regulated Navigation Area unless it is equipped with a secondary towing rig, in addition to its primary towing rig, that:

(A) Is of sufficient strength for towing the vessel.

(B) Has a connecting device that can receive a shackle pin of at least two inches in diameter.

(C) Is fitted with a recovery pickup line led outboard of the vessel's hull.

(ii) A tow consisting of two or more vessels, each of which is less than 100 gross tons, that has a total gross tonnage that is over 100 gross tons, shall be equipped with a secondary towing rig between each vessel in the tow, in addition to its primary towing rigs, while the tow is operating within this Regulated Navigation Area. The secondary towing rig must:

(A) Be of sufficient strength for towing the vessels.

(B) Have connecting devices that can receive a shackle pin of at least two inches in diameter.

(C) Be fitted with recovery pickup lines led outboard of the vessel's hull.

(4) *Thimble Shoals Channel controls.*

(i) A vessel drawing less than 25 feet may not enter the Thimble Shoal Channel, unless the vessel is crossing the channel. Masters should consider the squat of their vessel based upon vessel design and environmental conditions. Channel crossings shall be made as perpendicular to the channel axis as possible.

(ii) Except when crossing the channel, a vessel in the Thimble Shoal North

Auxiliary Channel shall proceed in a westbound direction.

(iii) Except when crossing the channel, a vessel in the Thimble Shoal South Auxiliary Channel shall proceed in an eastbound direction.

(5) *Restrictions on vessels with impaired maneuverability—*(i) *Before entry.* A vessel over 100 gross tons, whose ability to maneuver is impaired by heavy weather, defective steering equipment, defective main propulsion machinery, or other damage, may not enter the Regulated Navigation Area without the permission of the Captain of the Port.

(ii) *After entry.* A vessel over 100 gross tons, which is underway in the Regulated Navigation Area, that has its ability to maneuver become impaired for any reason, shall, as soon as possible, report the impairment to the Captain of the Port.

(6) *Requirements for navigation charts, radars, and pilots.* No vessel over 100 gross tons may enter the Regulated Navigation Area, unless it has on board:

(i) Corrected paper or electronic charts of the Regulated Navigation Area.

(ii) An operative radar during periods of reduced visibility;

(iii) When in inland waters, a pilot or other person on board with previous experience navigating vessels on the waters of the Regulated Navigation Area.

(7) *Emergency procedures.* (i) Except as provided in paragraph (d)(7)(ii) of this section, in an emergency any vessel may deviate from the regulations in this section to the extent necessary to avoid endangering the safety of persons, property, or the environment.

(ii) A vessel over 100 gross tons with an emergency that is located within two nautical miles of the CBBT or I-664 Bridge Tunnel shall notify the Captain of the Port of its location and the nature of the emergency, as soon as possible.

(8) *Vessel speed limits—*(i) *Little Creek.* A vessel may not proceed at a speed over five knots between the Route 60 Bridge and the mouth of Fishermans Cove (Northwest Branch of Little Creek).

(ii) *Southern Branch of the Elizabeth River.* A vessel may not proceed at a speed over six knots between the junction of the Southern and Eastern Branches of the Elizabeth River and the Norfolk and Portsmouth Belt Line Railroad Bridge between Chesapeake and Portsmouth, Virginia.

(iii) *Norfolk Harbor Reach.* Nonpublic vessels of 300 gross tons or more may not proceed at a speed over 10 knots between the Elizabeth River Channel Lighted Gong Buoy 5 of Norfolk Harbor Reach (southwest of Sewells Point) at

approximately 36°58'00" N, 076°20'00" W, and gated Elizabeth River Channel Lighted Buoys 17 and 18 of Craney Island Reach (southwest of Norfolk International Terminal at approximately 36°54'17" N, and 076°20'11" W.

(9) *Port security requirements.* This paragraph shall only apply when the Commandant or the Captain of the Port sets MARSEC Level 2 or 3, as detailed in 33 CFR part 101, for any area, operation, or industry within the Regulated Navigation Area. Vessels in excess of 300 gross tons, including tug and barge combinations in excess of 300 gross tons (combined), shall not enter the Regulated Navigation Area, move within the Regulated Navigation Area, or be present within the Regulated Navigation Area, unless they comply with the following requirements:

(i) Obtain authorization to enter the Regulated Navigation Area from the designated representative of the Captain of the Port prior to entry. All vessels entering or remaining in the Regulated Navigation Area may be subject to a Coast Guard boarding.

(ii) Report any departure from or movement within the Regulated Navigation Area to the designated representative of the Captain of the Port prior to getting underway.

(iii) The designated representative of the Captain of the Port is the Sector Command Center (SCC) which shall be contacted on VHF-FM channel 12, or by calling (757) 668-5555.

(iv) In addition to the authorities listed in this part, this paragraph is promulgated under the authority under 46 U.S.C. 70116.

(e) *Waivers.* (1) The Captain of the Port may, upon request, waive any regulation in this section.

(2) An application for a waiver must state the need for the waiver and describe the proposed vessel operations.

(f) *Control of vessels within the regulated navigation area.* (1) When necessary to avoid hazard to vessel traffic, facility or port infrastructure, or the public, the Captain of the Port may prohibit entry into the regulated area, direct the movement of a vessel or vessels, or issue orders requiring vessels to anchor or moor in specific locations.

(2) If needed for the maritime, commercial or safety and security interests of the United States, the Captain of the Port may direct a vessel or vessels to move from its current location to another location within the Regulated Navigation Area, or to leave the Regulated Navigation Area completely.

(3) The master of a vessel within the Regulated Navigation Area shall comply with any orders or directions issued to

the master's vessel by the Captain of the Port.

Dated: May 17, 2023.

**Shannon N. Gilreath,**

*Rear Admiral, U.S. Coast Guard, Commander,  
Fifth Coast Guard District.*

[FR Doc. 2023-10935 Filed 5-22-23; 8:45 am]

**BILLING CODE 9110-04-P**

## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

#### 33 CFR Part 165

[Docket Number USCG-2023-0205]

RIN 1625-AA00

#### Safety Zone; Fireworks Display, Yaquina Bay, Newport, OR

**AGENCY:** Coast Guard, DHS.

**ACTION:** Temporary final rule.

**SUMMARY:** The Coast Guard is establishing a temporary safety zone for certain waters of the Yaquina Bay. This action is necessary to provide for the safety of participants and the maritime public during a fireworks display on the Yaquina Bay near Newport, Oregon on July 4th, 2023. This regulation prohibits non-participant persons and vessels from being in the safety zone unless authorized by the Captain of the Port Columbia River or a designated representative.

**DATES:** This rule is effective from 9:30 p.m. to 11 p.m. on July 4, 2023.

**ADDRESSES:** To view documents mentioned in this preamble as being available in the docket, go to <https://www.regulations.gov>, type USCG-2023-0205 in the search box and click "Search." Next, in the Document Type column, select "Supporting & Related Material."

**FOR FURTHER INFORMATION CONTACT:** If you have questions about this proposed rulemaking, call or email LT Carlie Gilligan, Waterways Management Division, Sector Columbia River, Coast Guard; telephone 503-240-9319, email [D13-SMB-MSUPortlandWWM@uscg.mil](mailto:D13-SMB-MSUPortlandWWM@uscg.mil).

#### SUPPLEMENTARY INFORMATION:

##### I. Table of Abbreviations

CFR Code of Federal Regulations  
COTP Captain of the Port Columbia River  
DHS Department of Homeland Security  
FR Federal Register  
NPRM Notice of proposed rulemaking  
§ Section  
U.S.C. United States Code

## II. Background Information and Regulatory History

On February 6, 2023, Western Display Fireworks, LTD notified the Coast Guard that it will be conducting a fireworks display from 10 to 10:30 p.m. on July 4, 2023. In response, on March 27, 2023, the Coast Guard published a notice of proposed rulemaking (NPRM) titled Safety Zone; Fireworks Display, Yaquina Bay, Newport, OR (88 FR 18104). There we stated why we issued the NPRM and invited comments on our proposed regulatory action related to this fireworks display. During the comment period that ended April 26, 2023, we received two comments, both in support of the proposed rule.

## III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034. The Captain of the Port Columbia River (COTP) has determined that the potential hazards associated with the fireworks display would be a safety concern for anyone within the designated area of the safety zone before, during, or after the event. The purpose of this rulemaking is to protect personnel, vessels, and the marine environment in these navigable waters before, during, and after the scheduled event.

## IV. Discussion of Comments, Changes, and the Rule

As noted above, we received two relevant comments on our NPRM published March 27, 2023. The comments supported and agreed with the proposed rule. Thus, there are no changes in the regulatory text of this rule from the proposed rule in the NPRM.

This rule establishes a safety zone from 9:30 to 11 p.m. on July 4, 2023. The safety zone would cover all navigable waters within 500 feet of the launch site located at approximately 44°37'31" N 124°2'5" W in the Port of Newport, Oregon. The duration of the zone is intended to ensure the safety of vessels and these navigable waters before, during, and after the scheduled 10 to 10:30 p.m. fireworks display. No vessel or person will be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative.

## V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.



### A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a “significant regulatory action,” under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, and duration of the safety zone. The safety zone created by this rule is designed to minimize its impact on navigable waters. This rule prohibits entry into certain navigable waters of the Yaquina Bay and will not exceed 2 hours in duration. Thus, restrictions on vessel movement within that area will be minimal. Moreover, under certain conditions vessels may still transit through the safety zone when permitted by the COTP. The Coast Guard will issue a Broadcast Notice to Mariners via VHF-FM marine channel 16 about the zone and the rule allows vessels to seek permission to enter the zone.

### B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard received no comments from the Small Business Administration on this rulemaking. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule affects your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the

person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency’s responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

### C. Collection of Information

This rule does not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

### D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have Tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes.

### E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

### F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule involves a safety zone that will be enforced for 1.5 hours that will prohibit entry within 500 feet of a fireworks launch site. It is categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

### G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

### List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard is amending 33 CFR part 165 as follows:

### PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

- 1. The authority citation for part 165 continues to read as follows:

**Authority:** 46 U.S.C. 70034, 70051, 70124; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.3.

- 2. Add § 165.T13–0205 to read as follows:

#### § 165.T13–0205 Safety Zone; Fireworks Display, Yaquina Bay, Newport, OR.

(a) *Location.* The following area is a safety zone: All navigable waters within 500 feet of a fireworks launch site in Newport, OR. The fireworks launch site will be at the approximate point of 44°37′31.62″ N/124°2′5.42″ W.



(b) *Definitions.* As used in this section—

*Designated representative* means a Coast Guard Patrol Commander, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Columbia River (COTP) in the enforcement of the safety zone.

*Participant* means all persons and vessels registered with the event sponsor as a participant in the fireworks display.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, all non-participants may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative by calling (503) 209-2468 or the Sector Columbia River Command Center on Channel 16 VHF-FM. Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP's designated representative.

(3) The COTP will provide notice of the regulated area through advanced notice via broadcast notice to mariners and by on-scene designated representatives.

(d) *Enforcement period.* This section will be enforced from 9:30 to 11 p.m. on July 4, 2023. It will be subject to enforcement this entire period unless the COTP determines it is no longer needed, in which case the Coast Guard will inform mariners via Notice to Mariners.

Dated: May 17, 2023.

**M. Scott Jackson,**

*Captain, U.S. Coast Guard Captain of the Port, Sector Columbia River.*

[FR Doc. 2023-10886 Filed 5-22-23; 8:45 am]

BILLING CODE 9110-04-P

## DEPARTMENT OF VETERANS AFFAIRS

### 38 CFR Part 17

RIN 2900-AQ58

#### Collection or Recovery by VA for Humanitarian Care or Services and for Certain Other Care and Services

**AGENCY:** Department of Veterans Affairs.

**ACTION:** Final rule.

**SUMMARY:** The Department of Veterans Affairs (VA) adopts as final, with a minor technical change, a proposed rule

to revise its regulations concerning reimbursement rates for health care that VA provides to individuals who are not otherwise eligible for such care as veterans or other VA beneficiaries. This rulemaking revises several medical regulations to be consistent with applicable law, to remove obsolete provisions, and to clarify the provision of VA health care to individuals who are not otherwise eligible for such care as veterans or other VA beneficiaries.

**DATES:** This rule is effective June 22, 2023.

**FOR FURTHER INFORMATION CONTACT:**

Debra Vatthauer, Office of Finance, Revenue Operations, Payer Relations and Services, Rates and Charges (104RO1), Veterans Health Administration, Department of Veterans Affairs, 128 Bingham Road, Suite 1000, Asheville, NC 28806; telephone: 608-821-7346 (this is not a toll-free number).

**SUPPLEMENTARY INFORMATION:** On 29 November 2022 VA published a proposed rule in the **Federal Register** that would revise its regulations concerning reimbursement rates for health care that VA provides to individuals who are not otherwise eligible for such care as veterans or other VA beneficiaries. Specifically, this rulemaking would revise provisions of VA regulations and make them consistent with applicable law along with removing obsolete provisions. These revisions would clarify VA regulations related to the provision of VA health care to individuals who are not otherwise eligible for such care as veterans or other VA beneficiaries, and it would not substantively affect the provision of health care to eligible veterans or other VA beneficiaries.

VA provided a 60-day comment period, which ended on January 30, 2023. VA received one comment on the proposed rule. This comment supported the proposed rule, and we thank the commenter for their comment.

Based on the rationale set forth in the proposed rule, VA is adopting the proposed rule with a minor technical change. To comply with **Federal Register** drafting practices, we are making a minor change to the language proposed in 38 CFR 17.102 to replace the term “below.” with “as follows:”. These changes have no substantive impact on provision of benefits or services to veterans.

#### Executive Orders 12866, 13563 and 14094

Executive Order 12866 (Regulatory Planning and Review) directs agencies to assess the costs and benefits of

available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, and other advantages; distributive impacts; and equity). Executive Order 13563 (Improving Regulation and Regulatory Review) emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Executive Order 14094 (Executive Order on Modernizing Regulatory Review) supplements and reaffirms the principles, structures, and definitions governing contemporary regulatory review established in Executive Order 12866 of September 30, 1993 (Regulatory Planning and Review), and Executive Order 13563 of January 18, 2011 (Improving Regulation and Regulatory Review). The Office of Information and Regulatory Affairs has determined that this rule is not a significant regulatory action under Executive Order 12866, as amended by Executive Order 14094. The Regulatory Impact Analysis associated with this rulemaking can be found as a supporting document at [www.regulations.gov](http://www.regulations.gov).

#### Regulatory Flexibility Act

The Secretary hereby certifies that this rule will not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act, 5 U.S.C. 601-612. This final rule will affect only individuals and other Federal agencies. Therefore, pursuant to 5 U.S.C. 605(b), the initial and final regulatory flexibility analysis requirements of 5 U.S.C. 603 and 604 do not apply.

#### Unfunded Mandates

The Unfunded Mandates Reform Act of 1995 requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before issuing any rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. This final rule will have no such effect on State, local, and tribal governments, or on the private sector.

#### Paperwork Reduction Act

This rule contains no collections of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3521).

## Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), the Office of Information and Regulatory Affairs designated this rule as not a major rule, as defined by 5 U.S.C. 804(2).

## Assistance Listing

The Assistance Listing program numbers and titles for the programs affected by this document are Veterans Domiciliary Care; 64.011—Veterans Dental Care; 64.012—Veterans Prescription Service; 64.013—Veterans Prosthetic Appliances; 64.014—Veterans State Domiciliary Care; 64.015—Veterans State Nursing Home Care; 64.026—Veterans State Adult Day Health Care; 64.029—Purchase Care Program; 64.033—VA Supportive Services for Veteran Families Program; 64.039—CHAMPVA; 64.040—VHA Inpatient Medicine; 64.041—VHA Outpatient Specialty Care; 64.042—VHA Inpatient Surgery; 64.043—VHA Mental Health Residential; 64.044—VHA Home Care; 64.045—VHA Outpatient Ancillary Services; 64.046—VHA Inpatient Psychiatry; 64.047—VHA Primary Care; 64.048—VHA Mental Health clinics; 64.049—VHA Community Living Center; 64.050—VHA Diagnostic Care; 64.053.

## List of Subjects in 38 CFR Part 17

Administrative practice and procedure, Health care, Health facilities, Reporting and recordkeeping requirements, Travel and transportation expenses, Veterans.

## Signing Authority

Denis McDonough, Secretary of Veterans Affairs, approved this document on May 3, 2023, and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the Department of Veterans Affairs.

## Consuela Benjamin,

*Regulations Development Coordinator, Office of Regulation Policy & Management, Office of General Counsel, Department of Veterans Affairs.*

For the reasons stated in the preamble, the Department of Veterans Affairs amends 38 CFR part 17 as set forth below:

## PART 17—MEDICAL

■ 1. The authority citation for part 17 is amended by adding entries for 17.43, 17.44, 17.86, and 17.102 in numerical order to read in part as follows:

**Authority:** 38 U.S.C. 501, and as noted in specific sections.

\* \* \* \* \*

Section 17.43 also issued under 38 U.S.C. 109, 1784, 8111, and 8153.

Section 17.44 also issued under E.O. 10122, 15 FR 2173, 3 CFR, 1949–1953 Comp., p. 313, E.O. 10400, 17 FR 8648, 3 CFR, 1949–1953 Comp., p. 900, and E.O. 11733, 38 FR 20431, 3 CFR, 1971–1975 Comp., p. 792.

\* \* \* \* \*

Section 17.86 also issued under 38 U.S.C. 1785.

\* \* \* \* \*

Section 17.102 also issued under 38 U.S.C. 109, 1711, 1729, 1784, 1784A, 1785, 8111, 8153.

\* \* \* \* \*

### § 17.43 [Amended]

■ 2. Amend § 17.43 by removing paragraph (b)(3).

■ 3. Amend § 17.44 by revising paragraph (a) to read as follows:

#### § 17.44 Hospital care for certain retirees with chronic disability (Executive Orders 10122, 10400 and 11733).

\* \* \* \* \*

(a) Persons defined in this section who are members or former members of the active United States Armed Forces must agree to pay the rate set by the Secretary of Veterans Affairs as prescribed in § 17.102(c), except that no charge will be made for those persons who are members of the Public Health Service, Coast Guard, Coast and Geodetic Survey now NOAA, and enlisted personnel of the Army, Navy, Marine Corps, Air Force, and Space Force.

\* \* \* \* \*

■ 4. Amend § 17.86 by:

■ a. Revising paragraph (e); and

■ b. Removing the parenthetical authority citation at the end of the section.

The revision reads as follows:

#### § 17.86 Provision of hospital care and medical services during certain disasters and emergencies under 38 U.S.C. 1785.

\* \* \* \* \*

(e) The cost of care for medical care and services provided under this section will be determined in accordance with the following:

(1) If the care is provided to an officer or employee of a non-VA Federal agency VA will charge the rate agreed upon by the Secretary and the head of such department or agency or the Secretary concerned. If no such rate has been agreed to, VA will charge the Inter-Agency Rate as prescribed in § 17.102(c).

(2) If the care is provided to a member of the Armed Forces VA will charge the rate agreed upon by the Secretary and the head of such branch or the Secretary concerned. If no such rate has been

agreed to, VA will charge the Inter-Agency Rate as prescribed in § 17.102(c).

(3) If the care is authorized under a sharing agreement as described in 38 U.S.C. 8111 or 8153 or § 17.240, VA will charge the rate determined in accordance with the sharing agreement.

(4) If the care is provided to an individual who is responsible for the cost of the care, VA will charge the Cost-Based Rate as prescribed in § 17.102(c). Individuals will be responsible for the cost of care or services if mandated by Federal law (including applicable Appropriations Acts) or when the cost of care or services is not reimbursed by other-than-VA Federal departments or agencies.

\* \* \* \* \*

■ 5. Revise § 17.102 to read as follows:

#### § 17.102 Charges for care or services.

Subject to the methodology set forth in paragraph (c) of this section, and notwithstanding the provisions of § 17.101, VA shall charge for VA care and services provided in the circumstances described as follows:

(a) For hospital care or medical services provided:

(1) As a humanitarian service in a medical emergency in accordance with 38 U.S.C. 1784 or 38 U.S.C. 1784A;

(2) During and immediately following a disaster or emergency in accordance with 38 U.S.C. 1785 and § 17.86;

(3) While attending a national convention of an organization recognized under 38 U.S.C. 5902, for emergency medical treatment, in accordance with 38 U.S.C. 1711;

(4) In error, on the basis of eligibility as a non-veteran recipient of VA hospital care and medical services under title 38 U.S.C., and such an individual subsequently is determined not to have been eligible for such care or services;

(5) To a beneficiary of the Department of Defense or other Federal agency, to include for inpatient or outpatient care or services authorized for a member of the Armed Forces on active duty, a beneficiary or designee of any other Federal agency, and members or former members of a uniformed service who are entitled to retired or retainer pay, or equivalent pay; or

(6) To a retiree of the uniformed services with a chronic disability for hospital care identified in Executive Orders 10122, 10400, and 11733 as well as § 17.44.

(b) For hospital care, medical services, domiciliary care, or nursing home care provided:

(1) In error, on the basis of eligibility for such care and services as a veteran

under §§ 17.34, 17.36, or 17.37, and such an individual was subsequently determined not to have been eligible for such care or services.

(2) To a discharged member of the armed forces of a nation allied with the United States in World War I or World War II in accordance with 38 U.S.C. 109.

(3) Under a sharing agreement in accordance with 38 U.S.C. 8111 or 8153 and 17.240.

(4) Under any other provision of law that authorizes VA to provide care.

(c) Unless rates or charges are otherwise established in contract, in a sharing agreement, or under Federal law, VA will charge under this section at rates based on the VHA Office of Finance Managerial Cost Accounting (MCA) Cost Reports, which sets forth the actual basic costs and per diem rates by type of inpatient care, and actual basic costs and rates for outpatient care visits. Factors for depreciation of buildings and equipment and Central Office overhead are added, based on accounting manual instructions. Additional factors are added for interest on capital investment and for standard fringe benefit costs covering government employee retirement and disability costs. The VHA Office of Finance MCA Cost Reports are used to determine two separate rates: one rate is the general Cost-Based Rate and the other rate is the Inter-Agency Rate. These rates are published annually by VA on the internet site of the Veterans Health Administration Office of Community Care's website at [https://www.va.gov/communitycare/revenue\\_ops/payer\\_rates.asp](https://www.va.gov/communitycare/revenue_ops/payer_rates.asp).

(d) The rates for prescription drugs that VA furnishes not administered during treatment are based on the actual cost of the drug plus a national average of VA administrative costs as described in § 17.101(m).

[FR Doc. 2023-09893 Filed 5-22-23; 8:45 am]

BILLING CODE 8320-01-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 622

[Docket No. 100217095-2081-04]

RTID 0648-XD019

#### Reef Fish Fishery of the Gulf of Mexico; 2023 Recreational Accountability Measure and Closure for Gulf of Mexico Red Grouper

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

**ACTION:** Temporary rule; closure.

**SUMMARY:** NMFS implements an accountability measure (AM) for the red grouper recreational sector in the exclusive economic zone (EEZ) of the Gulf of Mexico (Gulf) for the 2023 fishing year through this temporary rule. NMFS has projected that the 2023 recreational annual catch target (ACT) for Gulf red grouper will have been reached by July 21, 2023. Therefore, NMFS closes the recreational sector for Gulf red grouper on July 21, 2023, and it will remain closed through the end of the fishing year on December 31, 2023. This closure is necessary to protect the Gulf red grouper resource.

**DATES:** This temporary rule is effective from 12:01 a.m., local time, on July 21, 2023, until 12:01 a.m., local time, on January 1, 2024.

**FOR FURTHER INFORMATION CONTACT:** Dan Luers, NMFS Southeast Regional Office, telephone: 727-551-5719, email: [daniel.luers@noaa.gov](mailto:daniel.luers@noaa.gov).

**SUPPLEMENTARY INFORMATION:** NMFS manages the Gulf reef fish fishery, which includes red grouper, under the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The FMP was prepared by the Gulf of Mexico Fishery Management Council and is implemented by NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) through regulations at 50 CFR part 622. All red grouper weights discussed in this temporary rule are in gutted weight.

Following a recent red grouper stock assessment, NMFS implemented Amendment 53 to the FMP (87 FR 25573, May 2, 2022). Among other measures, that amendment changed the units to estimate recreational red grouper catch from the Marine Recreational Information Program (MRIP) Coastal Household Telephone Survey to the MRIP Fishing Effort Survey (FES). It also revised sector catch limits, resulting in a recreational annual catch limit (ACL) of 1.73 million lb (0.78 million kg) and a recreational annual catch target (ACT) of 1.57 million lb (0.71 million kg) (50 CFR 622.41(e)(2)(iv)) (in MRIP FES units). Subsequent to the final rule for Amendment 53, NMFS implemented a final rule for a framework action to the FMP (87 FR 40742, July 8, 2022), which further revised the red grouper recreational ACL to 2.02 million lb (0.92 million kg) and the ACT to 1.84 million lb (0.83 million kg).

The Gulf red grouper recreational ACL (50 CFR 622.41(e)(2)(iv)) was exceeded in 2022 by approximately 0.70 million lb (0.32 million kg). As specified in 50 CFR 622.41(e)(2)(ii), in the year following a recreational ACL overage, NMFS is required to reduce the length of the following year's recreational fishing season by the amount necessary to ensure that the recreational ACT is not exceeded in that following year.

NMFS projects that the 2023 recreational ACT for Gulf red grouper of 1.84 million lb (0.83 million kg) will be reached as of July 21, 2023. This closure date is based on projected harvest rates using the average of recreational landings from 2021 and 2022. NMFS chose to use a 2-year average of harvest rates because it is most representative of current conditions. NMFS also chose to be conservative in setting the 2023 recreational season by using the 2-year average, which results in a shorter season than projected by using a 3-year average or using only 2022 landings. NMFS determined that it was appropriate to act conservatively because recreational harvest exceeded the red grouper recreational ACL by 72 percent in 2021 and by 35 percent in 2022. Accordingly, this temporary rule closes the recreational sector for Gulf red grouper effective at 12:01 a.m., local time, on July 21, 2023, through the end of the fishing year on December 31, 2023.

During the recreational closure, the bag and possession limits for red grouper in or from the Gulf EEZ are zero. The prohibition on possession of Gulf red grouper also applies in Gulf state waters for any vessel issued a valid Federal charter vessel/headboat permit for Gulf reef fish.

#### Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act. This action is required by 50 CFR 622.41(e)(2)(i) and (ii), which was issued pursuant to section 304(b) of the Magnuson-Stevens Act, and is exempt from review under Executive Order 12866.

Pursuant to 5 U.S.C. 553(b)(B), there is good cause to waive prior notice and an opportunity for public comment on this action, as notice and comment is unnecessary and contrary to the public interest. Such procedures are unnecessary because the regulations associated with the closure of the red grouper recreational sector at 50 CFR 622.41(e)(2)(i) and (ii) have already been subject to notice and public comment, and all that remains is to notify the public of the closure. Prior notice and opportunity for public comment are

contrary to the public interest because there is a need to immediately implement this action to protect the red grouper stock. Prior notice and opportunity for public comment would require time and could result in a harvest well in excess of the established

ACT. In addition, many charter vessel/headboat operations book trips for clients in advance and require as much notice as NMFS is able to provide to adjust their business plans to account for the recreational fishing season.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: May 18, 2023.

**Jennifer M. Wallace,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. 2023-10973 Filed 5-18-23; 4:15 pm]

**BILLING CODE 3510-22-P**

# Proposed Rules

Federal Register

Vol. 88, No. 99

Tuesday, May 23, 2023

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-0940; Project Identifier AD-2022-01521-E]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney Division Engines

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2018-21-11, which applies to all Pratt & Whitney Division (PW) Model PW4074D, PW4077D, PW4084D, PW4090, and PW4090-3 engines with a low-pressure compressor (LPC) fan hub, part number (P/N) 51B821 or P/N 52B521, installed. AD 2018-21-11 requires performing repetitive eddy current inspections (ECIs) and fluorescent penetrant inspections (FPIs) for cracks in certain LPC fan hubs and removing LPC fan hubs from service that fail any inspection. Since the FAA issued AD 2018-21-11, the FAA determined that affected LPC fan hub assemblies can meet the published certificated life limit without the need for the required repetitive FPI inspections in AD 2018-21-11, and the repetitive ECI inspections require shortened intervals. Based on a report of another incident, the FAA determined that the unsafe condition is likely to exist or develop on additional LPC fan hub assemblies and PW model engines. This proposed AD would expand the applicability to include Model PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090-3 engines with any part number LPC fan hub assembly installed and would require performing repetitive ECIs of the LPC fan hub assembly and, depending on the results of the inspections, removal of the LPC fan hub assembly

from service. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by July 7, 2023.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *regulations.gov*. Follow the instructions for submitting comments.

- *Fax:* (202) 493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at *regulations.gov* by searching for and locating Docket No. FAA-2023-0940; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For Pratt & Whitney Division service information identified in this NPRM, contact Pratt & Whitney Division, 400 Main Street, East Hartford, CT 06118; phone: (860) 565-0140; email: *help24@prattwhitney.com*; website: *connect.prattwhitney.com*.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

**FOR FURTHER INFORMATION CONTACT:** Carol Nguyen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7655; email: *carol.nguyen@faa.gov*.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2023-0940; Project Identifier AD-

2022-01521-E" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *regulations.gov*, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

#### Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Carol Nguyen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

#### Background

The FAA issued AD 2018-21-11, Amendment 39-19469 (83 FR 54663, October 31, 2018), ("AD 2018-21-11"), for all Pratt & Whitney Division (PW) PW4074D, PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines with low-pressure compressor (LPC) fan hub assembly, part number (P/N) 51B821 or P/N 52B521, installed. AD 2018-21-11 was prompted by low-cycle fatigue analysis techniques, updated by the engine manufacturer, which

indicated certain LPC fan hub assemblies could crack before their published life limit. AD 2018–21–11 requires performing initial and repetitive FPI and ECIs of the LPC fan hub assembly and removing the LPC fan hub assembly from service if it fails any inspection. The agency issued AD 2018–21–11 to prevent failure of the LPC fan hub assembly.

**Actions Since AD 2018–21–11 Was Issued**

Since the FAA issued AD 2018–21–11, the FAA determined that affected LPC fan hub assemblies can meet the published certificated life limit without the need for the required repetitive FPI inspections in AD 2018–21–11, and the repetitive ECI inspections require shortened intervals. The FAA also received a report of an uncontained failure of the fan hub assembly on an Engine Alliance GP7270 engine on an Air France flight. Investigation of this uncontained failure revealed that, due to the similarity of design and material processing for the LPC fan hub assembly, the ECI inspections should be done on all LPC fan hub assembly part

numbers installed on PW Model PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090–3 engines.

This condition, if not addressed, could result in uncontained debris release, damage to the engine, and damage to the aircraft.

**FAA’s Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

**Related Service Information Under 1 CFR Part 51**

The FAA reviewed Pratt & Whitney Division Alert Service Bulletin PW4G–112–A72–362, Revision 1 dated January 20, 2023. This service information specifies procedures for ECIs of the LPC fan hub assembly for cracks. This service information also specifies reporting inspection results to PW.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

**Proposed AD Requirements in This NPRM**

This proposed AD would retain none of the requirements of AD 2018–21–11. This proposed AD would expand the applicability to include Model PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090–3 engines with any P/N LPC fan hub assembly installed. This proposed AD would also require performing repetitive ECIs of the LPC fan hub assembly and, depending on the results of the inspections, removing the LPC fan hub assembly from service.

**Differences Between This Proposed AD and the Service Information**

Where the service information specifies reporting certain information to PW, this proposed AD does not include that requirement.

**Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 65 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

**ESTIMATED COSTS**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Perform ECI of LPC fan hub assembly.	14 work-hours × \$85 per hour = \$1,190.	Not Applicable .....	\$1,190	\$77,350

The FAA estimates the following costs to do any necessary replacements that would be required based on the

results of the proposed inspection. The agency has no way of determining the

number of engines that might need this replacement:

**ON-CONDITION COSTS**

Action	Labor cost	Parts cost	Cost per product
Replace LPC fan hub assembly .....	65 work-hours × \$85 per hour = \$5,525 .....	\$1,194,000	\$1,199,525

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing

regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or

on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by:
- a. Removing Airworthiness Directive 2018–21–11, Amendment 39–19469 (83 FR 54663, October 31, 2018); and
  - b. Adding the following new airworthiness directive:

**Pratt & Whitney Division:** Docket No. FAA–2023–0940; Project Identifier AD–2022–01521–E.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) action by July 7, 2023.

**(b) Affected ADs**

This AD replaces AD 2018–21–11, Amendment 39–19469 (83 FR 54663, October 31, 2018); (AD 2018–21–11).

**(c) Applicability**

This AD applies to all Pratt & Whitney Division (PW) Model PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090–3 engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

**(e) Unsafe Condition**

This AD was prompted by an updated analysis by the engine manufacturer, which indicated certain low-pressure compressor (LPC) fan hubs could crack before their published life limit. We are issuing this AD to prevent failure of the LPC fan hub. The unsafe condition, if not addressed, could result in uncontained hub release, damage to the engine, and damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) Before accumulating 550 flight cycles (FC) after the effective date of this AD, and thereafter at intervals not to exceed 550 FC since the last eddy current inspection (ECI), perform an ECI of the LPC fan hub assembly, in accordance with the Accomplishment Instructions, For Engines Installed on

Aircraft, paragraph 2., or For Engines Not Installed on Aircraft, paragraph 3; of PW Alert Service Bulletin PW4G–112–A72–362, Revision 1 dated January 20, 2023 (ASB PW4G–112–A72–362, Revision 1).

(2) If a rejectable or reportable indication is found during the inspections required by paragraph (g)(1) of this AD, before further flight, replace the LPC fan hub assembly with a part eligible for installation.

**(h) Installation Prohibition**

After the effective date of this AD, do not install an LPC fan hub assembly on any engine, unless it is a part eligible for installation as defined in paragraph (j) of this AD.

**(i) No Reporting Requirement**

This AD does not require reporting certain information to the manufacturer as specified in ASB PW4G–112–A72–362, Revision 1.

**(j) Definitions**

For the purposes of this AD, a “part eligible for installation” is an affected LPC fan hub assembly that has been inspected as required by paragraph (g)(1) of this AD and does not have a rejectable or reportable indication or a LPC fan hub assembly with zero cycles since new.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Related Information**

For more information about this AD, contact Carol Nguyen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue; phone: (781) 238–7655; email: [carol.nguyen@faa.gov](mailto:carol.nguyen@faa.gov).

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Pratt & Whitney Division Alert Service Bulletin PW4G–112–A72–362, Revision 1, dated January 20, 2023.

(ii) [Reserved]

(3) For service information identified in this AD, contact Pratt & Whitney Division, 400 Main Street, East Hartford, CT 06118; phone: (860) 565–0140; email: [help24@prattwhitney.com](mailto:help24@prattwhitney.com); website: [connect.prattwhitney.com](http://connect.prattwhitney.com).

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on May 4, 2023.

**Michael Linegang,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2023–10908 Filed 5–22–23; 8:45 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

**[Docket No. FAA–2023–1050; Project Identifier AD–2022–00602–E]**

**RIN 2120–AA64**

**Airworthiness Directives; Honeywell International Inc. Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Honeywell International Inc. Model AS907–1–1A and AS907–2–1G engines. This proposed AD was prompted by reports of compressor surge, including a dual engine compressor surge, during takeoff climb out through a steep temperature inversion, causing a loss of engine thrust control. This proposed AD would require either the replacement of a certain electronic control unit (ECU) software version installed on AS907–1–1A engines with updated software or the replacement of certain ECUs installed on AS907–1–1A engines with ECUs eligible for installation. This proposed AD would also require the replacement of certain ECUs installed on AS907–2–1G engines with ECUs eligible for installation. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by July 7, 2023.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal*: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- *Fax*: (202) 493-2251.

- *Mail*: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery*: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket*: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2023-1050; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Joseph Costa, Aviation Safety Engineer, West Certification Branch, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5246; email: [joseph.costa@faa.gov](mailto:joseph.costa@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include “Docket No. FAA-2023-1050; Project Identifier AD-2022-00602-E” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Joseph Costa, Aviation Safety Engineer, West Certification Branch, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Background**

The FAA was notified of several reports that Honeywell International Inc. (Honeywell) Model AS907-1-1A and AS907-2-1G engines experienced compressor surge, including an AS907-1-1A dual engine compressor surge, during takeoff climb out through a steep temperature inversion, which resulted in loss of engine thrust control. The FAA determined that the installed ECU software version logic locked the engine inlet total temperature (Tt2) at 60 knots on a takeoff roll and that reference Tt2 remained locked until the aircraft reached 400 feet above ground level (AGL) or the pilot moved the throttle before reaching 400 AGL. The locked Tt2 is mathematically adjusted by the ECU software for altitude and Mach number changes as the takeoff progresses. During the climb to 400 feet AGL with a thermal inversion, the actual engine Tt2 can increase above the Tt2 that is being calculated by the ECU, which causes the compressor guide vanes’ (CGVs) position to be off-schedule for the actual ambient conditions. Significant off-scheduling of

the CGVs can lead to a compressor surge event. The compressor surge margin is decreased when scheduling is based on a colder Tt2 temperature than what the engine is actually running. Engine deterioration impacts compressor surge margin and can increase the likelihood of a dual engine compressor surge as the AS907-1-1A and AS907-2-1G engine fleets age. Dual engine power loss due to a temperature inversion occurring within 75 feet AGL during takeoff climb out may cause the loss of thrust control of an airplane. This condition, if not addressed, could result in reduced controllability of the airplane, loss of control of the airplane, reduced ability of the flight crew to maintain the safe flight and landing of the airplane, and loss of the airplane.

**FAA’s Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

**Proposed AD Requirements in this NPRM**

This proposed AD would require either the replacement of a certain ECU software version installed on AS907-1-1A engines with a software version eligible for installation or the replacement of certain ECUs installed on AS907-1-1A engines with ECUs eligible for installation. This proposed AD would also require the replacement of certain ECUs installed on AS907-2-1G engines with ECUs eligible for installation. ECUs with P/N 2119576-3001 or P/N 2119576-3002 installed in AS907-2-1G engines would be eligible for reinstallation on the AS907-2-1G engines until exceeding the compliance time specified in Table 2 to paragraph (g)(2) of this AD.

**Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 853 engines installed on airplanes of U.S. registry. The FAA estimates that 175 engines installed on AS907-2-1G engines will require replacing two ECUs.

The FAA estimates the following costs to comply with this proposed AD:

**ESTIMATED COSTS**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace AS907-2-1G ECUs (2 per engine) ..	5 work-hours × \$85 per hour = \$425 .....	\$109,044	\$109,469	\$19,157,075



For either replacement of the AS907–1–1A ECU software or replacement of the AS907–1–1A ECUs, depending on the option selected by the operator to comply with this AD, the FAA estimates the following costs:

Action	Labor cost	Parts cost	Cost per product
Replace AS907–1–1A ECU software (2 per engine) ...	5 work-hours × \$85 per hour = \$425 .....	\$0	\$425
Replace AS907–1–1A ECU (per ECU, per engine) ....	2 work-hours × \$85 per hour = \$170 .....	61,162	61,332

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Honeywell International Inc.:** Docket No. FAA–2023–1050; Project Identifier AD–2022–00602–E.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by July 7, 2023.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Honeywell International Inc. (Honeywell) Model AS907–1–1A and AS907–2–1G engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7300, Engine Fuel and Control.

**(e) Unsafe Condition**

This AD was prompted by reports of compressor surge, including a dual engine compressor surge, during takeoff climb out through a steep temperature inversion, which caused a loss of engine thrust control. The FAA is issuing this AD to prevent loss of engine thrust control. The unsafe condition, if not addressed, could result in reduced controllability of the airplane, loss of control of the airplane, reduced ability of the flight crew to maintain the safe flight and landing of the airplane, and loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) For AS907–1–1A engines with an ECU having part number (P/N) 2119576–1011 and software version AS907\_1011 installed, before exceeding the applicable compliance time in Table 1 to paragraph (g)(1) of this AD, either replace software version AS907\_1001 with a software version eligible for installation; or replace the ECU with an ECU eligible for installation. Either the software or ECU must be replaced for all four ECUs installed in both airplane engines at the same time.

**Note 1 to paragraph (g)(1):** Guidance for removing and replacing the ECU software or removing and replacing the ECU may be found in Honeywell Service Bulletin (SB) AS907–76–9031, Revision 2, dated May 15, 2022.

TABLE 1 TO PARAGRAPH (g)(1)—MODEL AS907–1–1A ENGINES

Engine operating time since new (TSN)	Compliance time
Greater than 5,000 hours TSN .....	Within 12 months or before exceeding 400 hours time-in-service (TIS), whichever occurs first after the effective date of this AD.
3,000 to 5,000 hours TSN .....	Within 18 months or before exceeding 600 hours TIS, whichever occurs first after the effective date of this AD.
Fewer than 3,000 hours TSN .....	Within 24 months or before exceeding 800 hours TIS, whichever occurs first after the effective date of this AD.

(2) For AS907–2–1G engines with serial numbers (S/N) P130101 through P130240

that have not incorporated Honeywell SB AS907–72–9063, and for AS907–2–1G

engines with S/Ns P130241 through P130336, and S/Ns P130101 through P130240 that

have incorporated Honeywell SB AS907-72-9063, before exceeding the applicable compliance time in Table 2 to paragraph (g)(2) of this AD, replace any installed ECU having P/N 2119576-3001 or P/N 2119576-3002 with an ECU eligible for installation.

All four ECUs installed in both airplane engines must be replaced at the same time.

**Note 2 to paragraph (g)(2):** Guidance for removing and replacing the ECU may be found in Honeywell SB AS907-76-9014, Revision 6, dated October 10, 2022.

**Note 3 to paragraph (g)(2):** Guidance for converting a standard flow compressor to a high flow compressor for improving surge margin may be found in Honeywell SB AS907-72-9063, Revision 1, dated July 31, 2019.

TABLE 2 TO PARAGRAPH (g)(2)—MODEL AS907-2-1G ENGINES

Engine type	Compliance time
Standard Flow Compressor AS907-2-1G engines (engine S/Ns P130101 through P130240 that have not incorporated Honeywell SB AS907-72-9063).	Within 2 years or before exceeding 800 hours TIS, whichever occurs first after the effective date of this AD.
High Flow Compressor AS907-2-1G engines (engine S/Ns P130241 through P130336 and engines that have incorporated Honeywell SB AS907-72-9063).	Within 7 years or before exceeding 2,800 hours TIS, whichever occurs first after the effective date of this AD.

#### (h) Installation Prohibition

(1) After the effective date of this AD, do not install an ECU having P/N 2119576-1011 and software version AS907\_1001 in any AS907-1-1A engine.

(2) Do not install an ECU having P/N 2119576-3001 or P/N 2119576-3002 in any AS907-2-1G engine if the ECU has exceeded the compliance time specified in Table 2 to paragraph (g)(2) of this AD.

#### (i) Definitions

(1) For the purpose of this AD, for the AS907-1-1A engine, a “software version eligible for installation” is a software version that is not software version AS907\_1001.

(2) For the purpose of this AD, for the AS907-1-1A engine, an “ECU eligible for installation” is an ECU that does not have P/N 2119576-1011.

(3) For the purpose of this AD, for the AS907-2-1G engine, an “ECU eligible for installation” is an ECU that does not have P/N 2119576-3001 or P/N 2119576-3002.

#### (j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, West Certification Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification branch, send it to the attention of the person identified in paragraph (k)(1) of this AD and email to: [9-ANM-LAACO-AMOC-Requests@faa.gov](mailto:9-ANM-LAACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

#### (k) Related Information

(1) For more information about this AD, contact Joseph Costa, Aviation Safety Engineer, West Certification Branch, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5246; email: [joseph.costa@faa.gov](mailto:joseph.costa@faa.gov).

(2) For service information identified in this AD that is not incorporated by reference, contact Honeywell International Inc., 111 South 34th Street, Phoenix, AZ 85034;

phone: (800) 601-3099; website: [myaerospace.com](http://myaerospace.com). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

#### (l) Material Incorporated by Reference

None.

Issued on May 16, 2023.

**Michael Linegang,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2023-10817 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Parts 61, 63, 65, and 141

[Docket No. FAA-2023-0825; Notice No. 23-06]

RIN 2120-AL25

#### Removal of Expiration Date on a Flight Instructor Certificate; Additional Qualification Requirements To Train Initial Flight Instructor Applicants; and Other Provisions

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to amend the flight instructor certificate renewal requirements by changing the existing renewal requirements to recent experience requirements and adding a new method for persons to establish recent flight instructor experience. This rulemaking would also allow a flight instructor whose recent experience has lapsed by no more than three calendar months to reinstate flight instructor privileges by taking an approved flight instructor refresher course rather than

completing a flight instructor certification practical test. Additionally, the FAA proposes to amend the qualification requirements for flight instructors seeking to provide training to initial flight instructor applicants by adding two new methods under which a flight instructor may become qualified to provide this training. Lastly, the FAA proposes to relocate and codify the requirements of a Special Federal Aviation Regulation into the regulations.

**DATES:** Send comments on or before June 22, 2023.

**ADDRESSES:** Send comments identified by docket number FAA-2023-0825 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <https://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- *Mail:* Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to Docket Operations at 202-493-2251.

*Privacy:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to [www.regulations.gov](http://www.regulations.gov), as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <https://www.dot.gov/privacy>.

*Docket:* Background documents or comments received may be read at <https://www.regulations.gov> at any time.

Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Allan G. Kash, Training and Certification Group, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone (202) 267-1100; email [allan.g.kash@faa.gov](mailto:allan.g.kash@faa.gov).

**SUPPLEMENTARY INFORMATION:**

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**List of Abbreviations and Acronyms Frequently Used In This Document**

Advanced Aviation Training Device (AATD)  
 Aviation Training Device (ATD)  
 Basic Aviation Training Device (BATD)  
 FAA's Pilot Proficiency Program (WINGS)  
 Flight Instructor Refresher Course (FIRC)  
 Flight Instructor Enhanced Qualification Training Program (FIEQTP)  
 Flight Simulator Training Device (FSTD)  
 Flight Training Device (FTD)  
 Full Flight Simulator (FFS)

**I. Executive Summary**

This rulemaking would amend part 61 of title 14 of the Code of Federal Regulations (14 CFR) by revising the expiration, renewal, and reinstatement requirements for flight instructor certificates and revising the qualifications for flight instructors seeking to train initial flight instructor applicants.

As explained in section III.A. of the preamble, the FAA proposes to remove the expiration date on flight instructor certificates to align with other airmen certificates. As part of this rulemaking, the flight instructor certificate renewal requirements would become recent experience requirements. The FAA proposes to require flight instructors to establish recent experience at least once every 24 calendar months. The FAA also proposes to add a new method for flight instructors to establish recent experience by serving as a flight instructor in an FAA-sponsored pilot proficiency program. Additionally, while the FAA is not removing any existing allowances to renew a flight instructor certificate, as is discussed in section III.A., the FAA proposes to amend the reinstatement requirements of § 61.199 by allowing flight instructors to reinstate their flight instructor privileges by taking an approved flight instructor refresher course (FIRC), provided the flight instructor's recent experience has not lapsed for more than three calendar months.

As explained in section III.B. of the preamble, the FAA is also proposing to revise the qualifications for instructors seeking to train initial flight instructor applicants. More specifically, the FAA proposes to add two new qualification methods. Currently, to train initial flight instructor applicants,<sup>1</sup> a flight instructor under part 61 must meet the eligibility requirements of § 61.183, hold the appropriate flight instructor certificate and rating, have held a flight instructor certificate for at least 24 calendar months, and have given at least 200 hours of flight training as a flight instructor if training in preparation for an airplane, rotorcraft, or powered-lift rating.<sup>2</sup> In addition to retaining this current requirement, the FAA proposes two new options for flight instructors to qualify to provide flight training to initial flight instructor applicants. Under the first proposed method, a flight instructor would be required to have trained and endorsed at least five applicants for a practical test for a pilot certificate or rating, and at least 80 percent of those applicants passed that test on their first attempt. Under the second proposed method, a flight instructor would be required to have graduated from an FAA-approved flight instructor enhanced qualification training program (FIEQTP) and have

<sup>1</sup> Section 61.195(h) prescribes the requisite qualifications for a flight instructor training first-time flight instructor applicants.

<sup>2</sup> For training in preparation for a glider rating, the flight instructor must have given at least 80 hours of flight training as a flight instructor. 14 CFR 61.195(h)(2)(v).

given at least 200 hours of flight training as a flight instructor if training in preparation for an airplane, rotorcraft, or powered-lift rating (or 80 hours in the case of glider instruction). The FAA proposes to make these three qualification methods available to all flight instructors, including those serving under part 61 and those serving under an FAA-approved course under part 141 or 142.

Finally, the FAA proposes to relocate and codify Special Federal Aviation Regulation (SFAR) 100-2, *Relief for U.S. Military and Civilian Personnel who are Assigned Outside the United States in Support of U.S. Armed Forces Operations*, into parts 61, 63, and 65, respectively. The proposed codification of SFAR 100-2 is further discussed in section III.B.2.

**II. Authority for This Rulemaking**

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code (49 U.S.C.). Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

The FAA is issuing this proposed rulemaking under the authority described in 49 U.S.C. 106(f), which establishes the authority of the Administrator to promulgate regulations and rules; 49 U.S.C. 44701(a)(5), which requires the Administrator to promote safe flight of civil aircraft in air commerce by prescribing regulations and setting minimum standards for other practices, methods, and procedures necessary for safety in air commerce and national security; and 49 U.S.C. 44703(a), which requires the Administrator to prescribe regulations for the issuance of airman certificates when the Administrator finds, after investigation, that an individual is qualified for and physically able to perform the duties related to the position authorized by the certificate. This proposed rulemaking is within the scope of that authority.

**III. Discussion of the Proposal**

*A. Expiration, Renewal, and Reinstatement Requirements for Flight Instructor Certificates*

Section 61.19 prescribes the duration of pilot and instructor certificates and privileges. Currently, under § 61.19(d), a flight instructor certificate expires 24 calendar months from the month in which it was issued, renewed, or reinstated, as appropriate.<sup>3</sup> The FAA's

<sup>3</sup> Section 61.19(d) contains an exception to § 61.197(b), which prescribes the requirements for

current practice is to print the expiration date on the flight instructor certificate. To continue exercising flight instructor privileges, a person must renew their flight instructor certificate prior to its expiration date by passing a practical test or by submitting a completed and signed application with the FAA and satisfactorily completing one of the renewal requirements specified in § 61.197(a)(2). This renewal process occurs at least once every 24 calendar months from the date of issuance on the person's flight instructor certificate; however, flight instructors may renew their flight instructor certificates more frequently. If a person allows their flight instructor certificate to expire, the only method to reinstate that certificate is by passing a flight instructor practical test in accordance with § 61.199.

Industry advocates have expressed support for removing the expiration date on a flight instructor certificate and amending the renewal and reinstatement requirements. These industry advocates asserted that requiring an expiration date on a flight instructor certificate is overly burdensome, costly, and provides no safety benefits. Specifically, on September 14, 1999, and again on March 13, 2000, the Aircraft Owners and Pilots Association (AOPA) petitioned the FAA to remove the expiration on a flight instructor certificate. AOPA expressed concern that many current and former flight instructors perceive the existing FAA regulatory requirement for certificate expiration and reinstatement as a significant disincentive to renewing an expired certificated flight instructor certificate. AOPA's petition also asserted that flight instructor certificate expirations have substantially reduced the number of otherwise qualified and experienced part-time flight instructors.

AOPA asked the FAA to eliminate the expiration date on a flight instructor certificate and add a three-month grace period to allow a flight instructor to reestablish recent experience by completing a FIRC within those three months. AOPA asserted that these changes would directly benefit the public, encourage many flight instructors with expired certificates to rejoin the instructional community, and eliminate the need for over 9,700 salary hours of unnecessary administrative processing at the Airman Certification Branch of the Civil Aviation Registry Division. AOPA also maintained that these changes would not adversely

determining the expiration month of a renewed flight instructor certificate.

affect the quality of flight training or flight safety.

On February 7, 2007, the FAA published a notice of proposed rulemaking (NPRM) in the **Federal Register** proposing to amend §§ 61.19(d), 61.197(a), and 61.199 to allow the issuance of flight instructor certificates without expiration dates.<sup>4</sup> However, in the final rule published on August 21, 2009,<sup>5</sup> the FAA decided to withdraw this proposal and continue issuing flight instructor certificates with expiration dates after determining that revising its application procedures could achieve equivalent results. The new application process, which allowed a FIRC provider to submit applications directly to the FAA's Airman Certification Branch, may have incentivized some flight instructors to renew their flight instructor certificates due to its streamlined and simplified characteristics. However, the FAA concludes that this simplified application process has not sufficiently addressed the administrative burden on the FAA and flight instructors of renewing flight instructor certificates. Additionally, retaining the expiration dates on flight instructor certificates is inconsistent with most airman certificates issued under part 61, which do not have expiration dates. With most airman certificates, a person may continue to exercise airman privileges so long as the person meets the appropriate airman and medical recent experience requirements. Furthermore, the reinstatement requirements continue to provide a disincentive for flight instructors to reinstate their flight instructor certificates shortly after expiration because the only option available to reinstate a flight instructor certificate is to pass a flight instructor practical test.

Therefore, the FAA is proposing to amend the expiration, renewal, and reinstatement requirements for flight instructors, which are found in §§ 61.19(d), 61.197, and 61.199, respectively. The FAA notes that this proposed rulemaking would also make several conforming amendments in part 61 to accommodate the amendments to §§ 61.19(d), 61.197, and 61.199. The following sections discuss the FAA's proposal in more detail.

### 1. Removal of Expiration Date on Flight Instructor Certificates (§ 61.19)

Currently, under § 61.19(d), the flight instructor certificate expires 24 calendar

<sup>4</sup> NPRM, *Pilot, Flight Instructor, and Pilot School Certification*, 72 FR 5806, 5813 (Feb. 7, 2007).

<sup>5</sup> Final Rule, *Pilot, Flight Instructor, and Pilot School Certification*, 74 FR 42500, 42508 (Aug. 21, 2009).

months from the month in which it was issued, renewed, or reinstated, as appropriate, except as provided in § 61.197(b). Section 61.197(b) prescribes requirements for determining the expiration month of a renewed flight instructor certificate.<sup>6</sup>

The FAA is currently required to reissue physical certificates every time a flight instructor renews or reinstates their flight instructor certificate. This requirement leads to the FAA issuing many certificates each year.<sup>7</sup> Moreover, while flight instructors are required to renew their flight instructor certificates once every 24 calendar months, flight instructors often renew them more frequently (*i.e.*, the regulations do not prevent a flight instructor from renewing at an earlier date than their expiration), which results in a higher processing workload for the FAA. The FAA finds that removing the expiration date from the flight instructor certificate would reduce the financial and administrative burdens without degrading safety because the current renewal requirements would become recent experience requirements, which flight instructors would continue to meet at least once every 24 calendar months to retain their flight instructor privileges.

The FAA's proposal to remove the expiration date from flight instructor certificates is also intended to align the flight instructor certificate requirements with other airman certificates. Most airman certificates issued under part 61 do not have expiration dates. Instead, a person may exercise the privileges of an airman certificate only if that person meets the appropriate recent experience requirements of part 61, specific to the operation or activity.<sup>8</sup> Therefore,

<sup>6</sup> Currently, § 61.197(b) states the expiration month of a renewed flight instructor certificate shall be 24 calendar months from: (1) the month the renewal requirements of § 61.197(a) are accomplished; or (2) the month of expiration of the current flight instructor certificate provided the renewal requirements of § 61.197(a) are accomplished within 3 calendar months preceding the expiration month of the current flight instructor certificate; and if the renewal is accomplished by completing a FIRC, the approved FIRC must be completed within the 3 calendar months preceding the expiration month of the current flight instructor certificate.

<sup>7</sup> The FAA Airman Certification Branch processed 54,189 flight instructor certificate renewals in 2021 and 48,433 flight instructor certificate renewals in 2020. The FAA notes that as of 2021, there were 121,270 flight instructors. See [https://www.faa.gov/data\\_research/aviation\\_data\\_statistics/civil\\_aimen\\_statistics/](https://www.faa.gov/data_research/aviation_data_statistics/civil_aimen_statistics/).

<sup>8</sup> Section 61.2(b)(1) states that no person may exercise privileges of an airman certificate, rating, endorsement, or authorization issued under part 61 unless that person meets the appropriate airman and medical recency requirements of part 61, specific to the operation or activity.

removing the expiration date on flight instructor certificates and changing the renewal requirements to recent experience requirements, which is discussed in the next section, would provide consistency in how airman certificates are issued and maintained under part 61.

For these reasons, the FAA proposes to remove the expiration date from flight instructor certificates by revising § 61.19(d). Because flight instructor certificates with expiration dates would continue to exist on the final rule's effective date, if this proposal is finalized, the FAA is proposing to create two subparagraphs under § 61.19(d). Section 61.19(d)(1) would remove the expiration date for flight instructor certificates issued on or after the final rule's effective date. Section 61.19(d)(2) would retain the current requirement and state that flight instructor certificates issued before the final rule's effective date would expire 24 calendar months from the month in which they were issued, renewed, or reinstated, as appropriate. In light of the proposed amendments to remove the expiration date from a flight instructor certificate, the FAA finds a revision is necessary to § 61.19(a)(2) to include flight instructor certificates to those certificates considered valid unless surrendered, suspended, or revoked. In addition, the exception to § 61.19(b) would be removed from § 61.19(d) as unnecessary because, under this proposal, flight instructors would no longer have to determine the expiration month of a renewed flight instructor certificate.

## 2. Flight Instructor Recent Experience Requirements (§ 61.197)

Currently, § 61.197(a) provides five mechanisms by which a person who holds a flight instructor certificate that has not expired may renew that flight instructor certificate. Under the first option, a person may renew their flight instructor certificate by passing a practical test under § 61.197(a)(1). Under the second option, a person may demonstrate that, within the preceding 24 calendar months, the person has endorsed at least five students for a practical test and at least 80 percent of those students passed that test on the first attempt.<sup>9</sup> The third option allows a

<sup>9</sup> 14 CFR 61.197(a)(2)(i). The FAA notes that current § 61.197(a)(2)(i) uses the term "students." The term "student" refers to an applicant for an airman certificate under part 61. However, the FAA believes the term "student" could be misinterpreted to mean "student pilot," which does not include certificated pilots training for an additional certificate or rating under part 61. See 14 CFR part 61, subpart C. The FAA is therefore proposing to use the term "applicant" because it would more appropriately describe the five persons that the

person to show, within the preceding 24 calendar months, that the flight instructor has served as a company check pilot, chief flight instructor, company check airman, or flight instructor in a part 121 or part 135 operation, or in a position involving the regular evaluation of pilots.<sup>10</sup> Under the fourth option, a person may demonstrate that the person has successfully completed an approved FIRC within the preceding 3 calendar months.<sup>11</sup> Lastly, a person may present a record showing that, within the preceding 24 calendar months, the person passed an official U.S. Armed Forces military instructor pilot or pilot examiner proficiency check in an aircraft for which the military instructor already holds a rating or in an aircraft for an additional rating.<sup>12</sup> The second through fifth options require a person to submit a completed and signed application with the FAA evidencing satisfactory completion of the chosen renewal option.

On April 2, 1964, the FAA published an NPRM that proposed to establish biennial renewal requirements for flight instructor certificates.<sup>13</sup> In the NPRM, the FAA proposed to require flight instructor certificates to be renewed every 24 months and to prohibit the exercise of the flight instructor privileges if the certificate expired without being renewed.<sup>14</sup> In the preamble, the FAA explained that these requirements were intended to increase safety through a higher standard of flight instruction by ensuring that flight instruction was being given by flight instructors who were familiar with current flight training standards and procedures.<sup>15</sup> The final rule was published on June 29, 1965, and the FAA adopted biennial requirements for

flight instructor may train and endorse under current § 61.197(a)(2)(i). For reasons discussed later in the preamble, the FAA is proposing to reorganize the requirements of § 61.197. The FAA notes that the requirement in current § 61.197(a)(2)(i) would be relocated to § 61.197(b)(2)(i).

<sup>10</sup> 14 CFR 61.197(a)(2)(ii).

<sup>11</sup> 14 CFR 61.197(a)(2)(iii).

<sup>12</sup> 14 CFR 61.197(a)(2)(iv). The FAA recently revised § 61.197(a)(2)(iv) to expand the 12 calendar month timeframe to 24 calendar months. Final Rule, *Regulatory Relief: Aviation Training Devices; Pilot Certification, Training, and Pilot Schools; and Other Provisions*, 83 FR 30232 (Jun. 27, 2018).

<sup>13</sup> NPRM, *Biennial Expiration and Renewal of Flight Instructor Certificates and Increased Supervision of Student Pilot Activities*, 29 FR 4738, 4739 (Apr. 2, 1964).

<sup>14</sup> The NPRM stated that under proposed § 61.9, Duration of certificates, a flight instructor certificate expired at the end of the 24th month after the month in which it was issued or renewed, but the holder may have obtained another certificate under proposed § 61.177, Renewal of flight instructor certificates.

<sup>15</sup> 29 FR at 4739.

flight instructor certificates in § 61.177.<sup>16</sup> In a final rule published on February 1, 1973,<sup>17</sup> the FAA recodified the flight instructor renewal requirements in § 61.197 and added additional options for flight instructors to renew, which were consistent with the intent of the original rule.<sup>18</sup>

As previously discussed, the FAA is proposing to remove the expiration date from the flight instructor certificate, which would eliminate the need to renew that certificate under current § 61.197. However, because the methods by which a person may renew a flight instructor certificate were adopted to ensure a high standard of flight training, the FAA finds it necessary to retain these methods under the new process.<sup>19</sup> Therefore, to continue the high quality of flight training in general aviation, the FAA proposes to amend § 61.197 by changing the flight instructor renewal requirements to flight instructor recent experience requirements. More specifically, under this proposal, the FAA would retain the current methods for renewal, which are specified in § 61.197(a) but would refer to them as recent experience requirements. Instead of a flight instructor renewing their flight instructor certificate every 24 calendar months, a flight instructor would need to establish recent experience at least once every 24 calendar months. This proposed change would ensure the quality of flight training is not adversely affected by the removal of the expiration date from the flight instructor certificate and would also align the flight instructor certificate with the majority of airman certificates in part 61, which are recent experience-based. The FAA notes that proposed § 61.197 would not impose new

<sup>16</sup> Final Rule, *Biennial Expiration and Renewal of Flight Instructor Certificates and Increased Supervision of Student Pilot Activities*, 30 FR 8256 (Jun. 29, 1965).

<sup>17</sup> Final Rule, *Part 61 and Part 91 Miscellaneous Amendments*, 38 FR 3156 (Feb. 1, 1973).

<sup>18</sup> Prior to 1973, the only means by which a person could renew a flight instructor certificate was by passing a practical test. The 1973 final rule amended the renewal requirements to allow a person to renew his or her flight instructor certificate by either passing a practical test or by showing one of the following: (1) a record of instruction showing that he or she is a competent flight instructor; (2) a satisfactory record as a company check pilot, chief flight instructor, pilot in command of an aircraft operated under part 121, or other activity involving the regular evaluation of pilots, and passes any oral test that may be necessary to determine that instructor's knowledge of current pilot training and certification requirements and standards; or (3) successful completion, within 80 days before the application for renewal, of an approved FIRC. 38 FR at 3178.

<sup>19</sup> NPRM, *Biennial Expiration and Renewal of Flight Instructor Certificates and Increased Supervision of Student Pilot Activities*, 29 FR 4738, 4739 (Apr. 2, 1964).

requirements on flight instructors. As with the current rule, flight instructors would have the option to choose one of several methods to satisfy the recent experience requirements.

Additionally, the FAA proposes to expand the regulatory options available to flight instructors to satisfy recent experience under § 61.197. Current § 61.197(a) identifies five methods for a flight instructor to renew a flight instructor certificate. FAA Order 8900.1, Volume 5, Chapter 2, Section 11 contains guidance about these methods. In this guidance, the FAA identifies the FAA's WINGS—Pilot Proficiency Program as an approved program that flight instructors can use to satisfy flight instructor certificate renewal requirements.<sup>20</sup>

The WINGS Program is a voluntary pilot education and proficiency program. The program consists of learning activities and tasks selected to address the documented causal factors of aircraft accidents. The WINGS Program provides the opportunity, the structure, and the recognition for pilots and flight instructors to continue their aviation education. The WINGS Program also provides a vast and cost-free array of tools to help flight instructors perform their job more effectively, both when instructing on the ground and in flight. These tools include, but are not limited to, online lessons specifically designed to present critical information, updates, and activities to flight instructors concerning flight training and safety. Flight instructors are an integral part of the aviation community and play an important role in reducing the number of general aviation accidents by providing training and modeling best practices. Lessons and activities provided to flight instructors by the WINGS curriculum help to ensure flight instructors are familiar with current flight training standards and procedures. For these reasons, the FAA has determined that § 61.197 should include a standalone method that would allow persons to renew their flight instructor certificates or establish recent experience, as proposed, by serving as a

flight instructor and participating in the WINGS program.

Because the WINGS Program is currently accepted as a certificate renewal method for flight instructors and the FAA finds that the program familiarizes flight instructors with current flight training standards and procedures, the FAA proposes to add regulatory text to § 61.197(b)(2) to expressly allow participation in the program as a method for meeting recent experience.<sup>21</sup> Rather than codifying the WINGS Program itself, the FAA proposes to adopt language in § 61.197(b)(2)(v) that would allow a flight instructor to satisfy recent experience by serving as a flight instructor in an FAA-sponsored pilot proficiency program, provided certain proposed requirements are met. The phrase “FAA-sponsored pilot proficiency program” is intended to provide flexibility in the regulation to account for programs comparable to the WINGS Program that may be developed in the future. Among the proposed requirements, the flight instructor would be required to hold a flight instructor certificate and meet the appropriate flight instructor recent experience requirements of part 61. Additionally, the proposed rule would require the flight instructor to complete at least one phase of the FAA-sponsored pilot proficiency program in the preceding 12 calendar months from the time of application. The FAA finds that requiring a flight instructor to participate in the program by completing at least one phase in the preceding 12 months would ensure that the flight instructor maintains pilot proficiency while gaining first-hand knowledge of the program and its benefits.<sup>22</sup> Lastly, the flight instructor would be required to have given at least 15 hours of flight training under the FAA-sponsored pilot proficiency program to at least 5 pilots and to have made appropriate endorsements in those pilots' logbooks.<sup>23</sup> A person

servicing as a flight instructor under the WINGS Program would satisfy this proposed requirement by giving flight training during at least 15 WINGS-accredited flight activities at any level to at least five different pilots. The FAA is proposing to require flight instructors to provide flight training to various individuals under the WINGS Program to ensure that the flight instructor encounters different experiences and familiarizes themselves with current flight training standards and procedures. Due to the proposed reorganization of § 61.197, which is discussed next, these proposed requirements are contained in § 61.197(b)(2)(v).

In changing the flight instructor renewal requirements to flight instructor recent experience requirements, the FAA proposes to reorganize the requirements of § 61.197 for clarity. Proposed § 61.197(a) would prohibit a person from exercising flight instructor privileges if that person has not satisfied the flight instructor recent experience requirements within the preceding 24 calendar months. Proposed § 61.197(a) would also specify how to determine when the 24 calendar month period begins. Initially, as proposed in § 61.197(a)(1), the 24 calendar month period would begin the month the FAA issues the flight instructor certificate without an expiration date to the person.<sup>24</sup> This would be the case for persons who are being issued the flight instructor certificate for the first time and also for persons renewing their flight instructor certificate upon completing the recent experience requirements to obtain a flight instructor certificate without an expiration date. As discussed further below, persons who currently hold a flight instructor certificate with an expiration date would be required to meet the recent experience requirements prior to the expiration date listed on their certificate. After the initial 24 calendar month period following the issuance of the flight instructor certificate without an expiration date, persons would determine the beginning of the subsequent 24 calendar month period based on when they accomplish the recent experience event. For example, if a person accomplishes recency during the first 20 months of their current recent experience period, that person's next 24 calendar month period would begin the month the recent experience requirements are accomplished.

<sup>24</sup> The FAA notes that the flight instructor's initial certificate without the expiration date will state a date of issuance, indicating when the 24 calendar month period would begin.

<sup>20</sup> The FAA notes that FAA Order 8900.1, Volume 5, Chapter 2, Section 11 was revised on September 12, 2018. Before the revision, the WINGS Program was accepted under § 61.197(a)(2)(iii) as an approved FIRC. Upon review of § 61.197 and its guidance, the FAA determined the WINGS Program did not meet the FIRC requirements of § 61.197(a)(2)(iii). Therefore, currently, the WINGS program is accepted under § 61.197(a)(2)(ii) as being “in a position involving the regular evaluation of pilots.” Information on the WINGS Program can be found in Advisory Circular (AC) 61–91, as revised, *WINGS—Pilot Proficiency Program*.

<sup>21</sup> The FAA notes that the certificate renewal options are currently located in § 61.197(a)(2); however, in proposing to reorganize § 61.197, the FAA proposes to relocate the certificate renewal options (which would be recent experience options under the proposal) to proposed § 61.197(b)(2).

<sup>22</sup> For more information about the various phases and levels of the WINGS Program, refer to FAA Order 8900.1, Volume 5, Chapter 2, Section 11 and Advisory Circular 61–91, as revised.

<sup>23</sup> The FAA notes that, currently, the WINGS Program records and validates all of the flight instructor's activities within the program, including endorsements made. The flight instructor may print a copy of the flight instructor's activity, including endorsements, as documentation for renewal eligibility. The FAA assumes that future FAA-sponsored pilot proficiency programs would enable the same tracking mechanisms.

However, consistent with what the FAA currently allows,<sup>25</sup> if a person accomplishes recency within the 3 calendar months preceding the last month of the person's current recent experience period (*i.e.*, the 24th calendar month), the next 24 calendar month period would begin the last month of the flight instructor's current recent experience period (*i.e.*, the 24th calendar month).

The FAA proposes to relocate the current renewal requirements, which would become recent experience requirements, from § 61.197(a) to § 61.197(b). Current § 61.197(b), which prescribes requirements for determining the expiration month of a renewed flight instructor certificate, would be removed as unnecessary. Current § 61.197(c), which allows the practical test required by § 61.197(a)(1) to be accomplished in a full flight simulator or flight training device if the test is accomplished under an approved course conducted by a part 142 training center, would be redesignated as § 61.197(d).<sup>26</sup>

The FAA also proposes to add two new paragraphs to § 61.197 to accommodate the change from renewal requirements to recent experience requirements. First, the FAA proposes to add § 61.197(c) to prohibit a person who fails to establish recent experience in accordance with the proposed requirements from exercising flight instructor privileges until that person reinstates their flight instructor privileges in accordance with proposed § 61.199. Second, the FAA proposes to add § 61.197(e) to address persons who currently hold flight instructor certificates with expiration dates. Under this proposal, a person who holds a flight instructor certificate with an expiration date would be required to renew that certificate by establishing recent experience in accordance with proposed § 61.197(b). Upon completing recent experience, that person would submit an Airman Certificate and/or Rating Application and associated documentation to the Airman Certification Branch to document experience and obtain a flight instructor certificate without an expiration date. If

<sup>25</sup> Currently, § 61.197(b) allows the expiration month of a renewed flight instructor certificate to be 24 calendar months from the current expiration month if the renewal requirements are accomplished within the 3 calendar months preceding the expiration month of the current flight instructor certificate.

<sup>26</sup> In a final rule that published on June 27, 2018, the FAA replaced the words "flight simulator" with "full flight simulator" in several regulations, including current § 61.197(c). Final Rule, *Regulatory Relief: Aviation Training Devices; Pilot Certification, Training, and Pilot Schools; and Other Provisions*, 83 FR 30232.

a person who holds a flight instructor certificate with an expiration date fails to establish recent experience prior to the expiration of their flight instructor certificate, that person may not exercise flight instructor privileges until those privileges are reinstated in accordance with § 61.199. Upon reinstating flight instructor privileges, that person would be issued a flight instructor certificate without an expiration date.

Currently, when a person renews their flight instructor certificate, that person is required to submit an Airman Certificate and/or Rating Application (FAA Form 8710–1 or 8710–11, as applicable) to the FAA along with associated documentation that shows the flight instructor satisfactorily completed one of the renewal requirements.<sup>27</sup> The airman submits FAA Form 8710–1 or 8710–11, as applicable, through the Integrated Airman Certification and Rating Application (IACRA) or by conventional mail to the Airman Certification Branch. Maintaining these records enables the FAA to keep track of how many flight instructor certificates have been renewed. The FAA notes that it is frequently asked to provide this data from many sources, such as governmental offices and industry. Under the proposed amendments, § 61.197 would continue to require persons to submit an Airman Certificate and/or Rating Application and associated documentation<sup>28</sup> to the FAA upon completion of the recent experience requirements. Submission of FAA Forms 8710–1 or 8710–11, as applicable, would remain the exclusive form and manner acceptable to the Administrator to submit flight instructor data to identify, validate, and track the flight instructor's recent experience period.

This process would allow the FAA to track and record the status of flight instructor certificates by capturing the

<sup>27</sup> 14 CFR 61.197(a)(2).

<sup>28</sup> Acceptable associated documentation submitted by the flight instructor to evidence completion of recent experience would not change under this proposed rule. Documentation would continue to be official company, FAA, military, or organizational records, as applicable. Acceptable documentation would show that the flight instructor met one of the recent experience options under § 61.197 and could include: a record of the names of applicants endorsed who passed the practical test and test dates (proposed § 61.197(b)(2)(i)), copies of official company records (proposed § 61.197(b)(2)(ii)), a copy of a FIRC graduation certificate (proposed § 61.197(b)(2)(iii)), official military records (proposed § 61.197(b)(2)(iv)), or a copy of an FAA-sponsored pilot proficiency program activity report (proposed § 61.197(b)(2)(v)). Additional details regarding acceptable documentation criteria are provided in FAA Order 8900.1, Volume 5, Chapter 2, Section 11, paragraph 5–504.

events in which an applicant satisfies the proposed recent experience requirements of § 61.197. While the flight instructor would not be applying to renew a certificate, the FAA finds it is necessary to maintain Forms 8710–1 and 8710–11 as the collection mechanism because it would allow the FAA to continue to track the number of flight instructors who are eligible to exercise the privileges of their flight instructor certificates in a manner that flight instructors are accustomed. Additionally, utilizing Forms 8710–1 and 8710–11 would allow the FAA to validate that the flight instructor does, in fact, satisfy the recent experience requirements. Should the FAA find that the flight instructor either does not sufficiently show a recent experience requirement has been met, or does not meet the recent experience requirements, the FAA would deny the applicant's 8710–1, and direct the appropriate Flight Standards District Office (FSDO) to issue a Letter of Disapproval to the flight instructor. To ensure the flight instructor is prepared to show satisfactory evidence of meeting recent experience, the FAA recommends that flight instructors record the date and method used to establish recent experience in their logbooks or records to track their eligibility to exercise flight instructor privileges. The FAA notes that a flight instructor would be able to verify the status of their flight instructor certificate online at Airmen On-Line Services or by contacting the FAA Airman Certification Branch.<sup>29</sup>

The FAA has revised FAA Forms 8710–1 and 8710–11 to account for recent experience for flight instructors and has placed a draft of each revised form in the docket for this rulemaking. The FAA notes that, in addition to the recent experience revisions, the FAA has also modified the form to clarify certain information. Specifically, and unrelated to this rulemaking, the FAA published a notice in the **Federal Register** inviting public comment on an information collection renewal for Forms 8130–15, 8710–11, and 8710–12 on April 7, 2022 (87 FR 20497, Docket No. FAA–2022–0455). AOPA commented in response to the notice recommending Question I.Za. on Form 8710–11 be amended to clarify whether alcohol offenses (generally) and those

<sup>29</sup> The FAA notes that a flight instructor would have several methods to contact the FAA to verify the status of the person's flight instructor certificate. The preferred method would be the Airmen Certification On-line services site. See <https://amsrvs.registry.faa.gov/airmeninquiry/>. The other methods include toll free phone, direct mail, and FAX.



involving motor vehicle actions (specifically) should be reported on the form. The FAA has clarified this question and added requisite instructions in response to AOPA's comment on both draft forms. While revising the form, the FAA also clarified question M. to restate from the instructions page that a student pilot certificate is considered a pilot certificate for purposes of the question. Finally, the FAA has also removed references to inspection authorization in both draft forms, as the FAA does not use these forms for initial or renewal inspection authorization applications. Rather, mechanics applying for an inspection authorization utilize Form 8610-1, which contains the requisite information. The FAA has analyzed these changes and determined that they do not affect the collection of information expected of the public such that any burden would increase.

### 3. Reinstatement of Flight Instructor Privileges (§ 61.199)

Currently, § 61.199 prescribes the reinstatement requirements for flight instructors who have allowed their flight instructor certificates to expire. To reinstate a flight instructor certificate, a person must either satisfactorily complete a flight instructor practical test or satisfy the reinstatement requirements for military instructor pilots. More specifically, a person who is not a military instructor pilot must satisfactorily complete either a flight instructor practical test for one of the ratings held on the expired flight instructor certificate or a flight instructor certification practical test for an additional rating. Military instructor pilots may either complete a flight instructor practical test or satisfy the requirements prescribed specifically for military instructor pilots in § 61.199(a)(3).<sup>30</sup> The reinstatement requirements of § 61.199 apply regardless of how recently the flight instructor certificate expired.

<sup>30</sup> Under these reinstatement requirements, which are currently contained in § 61.199(a)(3), a military instructor pilot must provide a record showing that, within the preceding 6 calendar months the military instructor pilot either passed a U.S. Armed Forces instructor pilot or pilot examiner proficiency check; or completed a U.S. Armed Forces' instructor pilot or pilot examiner training course and received an additional aircraft rating qualification as a military instructor pilot or pilot examiner that is appropriate to the flight instructor rating sought. While this option has also been extended to military pilot examiners, as evidenced in § 61.199(a)(3)(ii) of completing a pilot examiner training course, the introductory text of § 61.199(a)(3) is currently silent as to their inclusion. Therefore, the FAA proposes to add pilot examiners to § 61.199(a)(3) for consistency and clarity.

The FAA adopted the requirement for a flight instructor to take a practical test upon expiration of their flight instructor certificate in 1965<sup>31</sup> when the FAA adopted the biennial renewal requirements for flight instructor certificates, as previously discussed in section III.A.2 of this preamble. For the renewal or reinstatement of a flight instructor certificate, the FAA required a person to satisfactorily demonstrate to the Administrator the applicant's ability to give flight instruction by passing a practical test. However, the final rule allowed the Administrator to limit the test to those items necessary to determine continued competency of the applicant if the certificate was unexpired and the person's record of flight instruction warranted it. The FAA adopted the biennial expiration and renewal requirements to create a higher standard of flight instruction and ensure that flight instructors were familiar with current flight training standards and procedures.

Today, a flight instructor may renew a flight instructor certificate by completing an approved FIRC prior to the expiration date listed on their certificate. The FAA is retaining this method of renewal. However, a flight instructor who allows their flight instructor certificate to expire must pass a practical test regardless of how recently the flight instructor certificate expired. The FAA finds that the knowledge and skills of a person who renews their flight instructor certificate by completing an approved FIRC within the 24 month renewal window are comparable to the knowledge and skills of a person whose flight instructor certificate expired less than three calendar months after that period. Therefore, the FAA finds it unnecessary to require a person to take a flight instructor practical test during the first three calendar months following the expiration of the person's flight instructor certificate, or following the person's lapse in recent experience as proposed, because the flight instructor's knowledge and skills will not have degraded significantly during that time.

Furthermore, the FAA finds that the current reinstatement requirements of § 61.199 (*i.e.*, successful completion of a practical test) discourages many flight instructors who would otherwise renew their certificates shortly after expiration when there is little degradation in knowledge and experience. For example, a person whose flight instructor certificate has been expired for only one day is still required to take a practical test even though the

completion of an approved FIRC and submission of the documents required under § 61.197(a)(2) a few days sooner would have been sufficient. The FAA has determined that requiring a flight instructor to take a practical test shortly after their flight instructor certificate expires imposes unnecessary personal and financial burdens on that flight instructor. Taking a practical test is a time and cost-intensive endeavor. This expenditure generally includes the applicant's personal time to prepare for, arrange, and take the test; the cost of a designated examiner to conduct the test; and the aircraft operational or rental costs incurred while taking the test. These costs are significantly higher than the cost of completing an approved FIRC<sup>32</sup> under current § 61.197(a)(2)(iii).<sup>33</sup>

An approved FIRC informs flight instructors of the recent changes in general aviation flight training; provides flight instructors with the necessary refresher training; and exposes flight instructors to the latest in-flight training techniques, the newest technologies, and the latest operational safety procedures. FIRCs also emphasize development and improvement of the instructor skills necessary to effectively convey information to pilots-in-training and build a foundational culture of safety within them.<sup>34</sup> The FAA finds that allowing a flight instructor to complete an approved FIRC during the first three months following the flight instructor's lapse in recent experience would achieve the same level of safety as the current reinstatement requirements by ensuring flight instructors have the necessary level of aeronautical knowledge to perform their job effectively.

The FAA understands that a flight instructor's technical knowledge and instructional proficiency diminishes over prolonged inactivity; however, a flight instructor's knowledge and proficiency is not diminished on the day, or shortly after the day, the instructor's recent experience period has lapsed. Therefore, the FAA determined that mandating a practical test, as the only means to reinstate a flight instructor's recent experience and

<sup>32</sup> Refer to footnote 81 for estimated cost for taking a practical reinstatement test and the estimated savings that the FAA proposal would provide by allowing a flight instructor to complete an approved FIRC during the first three months following the flight instructor's lapse in recent experience.

<sup>33</sup> The FAA notes that the FAA proposes to reorganize § 61.197 and relocate § 61.197(a)(2)(iii) to § 61.197(b)(2)(iii).

<sup>34</sup> See Advisory Circular 61-83, as revised, Nationally Scheduled, FAA-Approved, Industry-Conducted Flight Instructor Refresher Course.



privileges, is unwarranted shortly after a flight instructor's recent experience lapses. As discussed earlier, AOPA also asked the FAA to add a three-month period to allow a flight instructor to reestablish recent experience by completing a FIRC within those three months. The FAA finds that three-calendar-months following the flight instructor's lapse of recent experience is an appropriate period to reinstate the privileges of their flight instructor certificate by completing a FIRC without adversely affecting the quality of flight training or flight safety. For the reasons discussed above, the FAA determined that there is good cause to propose a three-calendar-month period to allow flight instructors to reinstate their privileges to instruct by completing an approved FIRC.

The FAA's proposal to add a three-calendar-month reinstatement period that would allow flight instructors to take an approved FIRC rather than a practical test is intended to encourage flight instructors to reinstate their flight instructor privileges during the three calendar months following their lapse in recent experience. The FAA notes that a flight instructor may not exercise the privileges of their flight instructor certificate when their recent experience has lapsed. Furthermore, this option would accommodate flight instructors who have encountered unique circumstances, such as national disasters, that may have prevented them from renewing their certificates before the expiration date.

As explained in the previous sections, flight instructor certificates would not expire under this proposal, and flight instructors would be required to satisfy recent experience requirements rather than renewal requirements. As a result, the FAA proposes to make conforming amendments to § 61.199. More specifically, § 61.199 would contain the requirements for reinstating flight instructor privileges for persons who have allowed their recent experience to lapse, rather than reinstatement requirements for expired flight instructor certificates.

Accordingly, the FAA proposes to amend § 61.199(a) by adding a three-calendar-month reinstatement period that would immediately follow the flight instructor's lapse in recent experience, during which a person would have the option to reinstate their flight instructor privileges by completing an approved FIRC. This new reinstatement option would be contained in § 61.199(a)(1). The FAA notes that proposed § 61.199(a)(1) would also retain the option for a person to reinstate their flight instructor

privileges during the first three calendar months by passing a practical test in accordance with proposed § 61.199(a)(2) because this option is currently allowed today. Proposed § 61.199(a)(2) would contain the current requirements and would apply if more than three calendar months have passed since the last month of the flight instructor's recent experience period. Therefore, under proposed § 61.199(a)(2), a person would be required to pass either a flight instructor practical test for one of the ratings held on their flight instructor certificate or a flight instructor practical test for an additional rating.<sup>35</sup>

Additionally, in a 2018 final rule, the FAA added a temporary provision to § 61.199(c) to allow military instructors who obtained their initial flight instructor certificate under subpart H prior to October 20, 2009, to reinstate that instructor certificate based on military experience rather than by completing a practical test.<sup>36</sup> Per § 61.199(d), this temporary provision expired on August 26, 2019. As this expiration date has passed and this method of reinstatement for expired flight instructor certificates is no longer permitted, the FAA proposes to remove § 61.199(c) and (d) from the regulations.

*B. Conforming Amendments (§§ 61.2, 61.56, 61.425, 61.427, and Special Federal Aviation Regulation (SFAR) No. 100-2)*

The FAA proposes to make conforming amendments to §§ 61.2, 61.56, 61.425, 61.427, and Special Federal Aviation Regulation (SFAR) No. 100-2 to ensure consistency with the FAA's proposal to amend §§ 61.197 and 61.199. For reasons discussed in more detail below, the FAA also proposes to relocate and codify the requirements of SFAR 100-2 in the regulations.

**1. Proposed Amendments to §§ 61.2, 61.56, 61.425, and 61.427**

Section 61.2(b) requires persons to meet the appropriate airman and medical recent experience requirements to exercise privileges of an airman certificate, rating, endorsement, authorization, or foreign pilot license. Currently, § 61.2(b) refers to the recent experience requirements of part 61 as "recency" requirements rather than "recent experience" requirements. The

<sup>35</sup> The FAA notes that § 61.199(a)(3) will remain unchanged, thereby retaining the reinstatement option for military pilots to either pass a U.S. Armed Forces instructor pilot or pilot examiner proficiency check or complete a U.S. Armed Forces' instructor pilot or pilot examiner training course and receive an additional aircraft rating qualification as a military instructor pilot or pilot examiner.

<sup>36</sup> 83 FR 30232.

FAA recognizes that it uses the terms "recency," "recent flight experience," and "recent experience" requirements interchangeably in the regulations. However, the terms "recent flight experience" and "recent experience" are used more frequently than "recency." The FAA proposes to revise § 61.2(b) to use the term "recent experience" requirements to create consistency within part 61 and conform to the proposed changes to § 61.197, which would create recent experience requirements for flight instructors. The FAA notes that the term "recent experience" is more appropriate than "recent flight experience" because § 61.2(b) requires a person to meet the appropriate airman and medical recent experience requirements of part 61, which contain more than flight experience requirements.

Section 61.56 prescribes the requirements for a flight review, which must consist of a minimum of 1 hour of flight training and 1 hour of ground training. Except as specified in § 61.56(d), (e), and (g), a person may not act as pilot-in-command (PIC) of an aircraft unless that person has accomplished a flight review in the 24 calendar months preceding the month in which the pilot acts as PIC.<sup>37</sup> Therefore, § 61.56(d) contains certain exceptions to the flight review requirements. Under § 61.56(d)(2), a person need not accomplish a flight review if the person has passed a practical test conducted by an examiner for one of the following: the issuance of a flight instructor certificate, an additional rating on a flight instructor certificate, renewal of a flight instructor certificate, or the reinstatement of a flight instructor certificate.

Under the proposal, flight instructor certificates would no longer expire, and flight instructors would no longer be required to renew their flight instructor certificates under § 61.197. Instead, § 61.197 would contain flight instructor recent experience requirements and allow a person to establish recent experience by passing a practical test for one of the ratings listed on the flight instructor certificate or for an additional flight instructor rating. Additionally, § 61.199 would contain requirements for reinstating flight instructor privileges rather than requirements for reinstating an expired flight instructor certificate. Among the options for reinstatement, a person may pass a flight instructor practical test. Therefore, the FAA is proposing to revise the language of § 61.56(d)(2) to conform to the changes proposed in §§ 61.197 and 61.199.

<sup>37</sup> 14 CFR 61.56(c).

Additionally, the FAA is proposing a minor editorial change to § 61.56(e) to remove the word “award” in the description of the FAA-sponsored pilot proficiency program. The FAA currently sponsors a pilot proficiency program termed WINGS, which was previously described as an “awards” program. However, the FAA no longer assigns this terminology to WINGS, as the WINGS program is more properly described simply as a proficiency program designed to help improve pilot skills and knowledge. Further, the removal of the term “award” more accurately encompasses the general objectives of a pilot proficiency program to meet the flight renewal provision of § 61.56(e) should the FAA sponsor additional programs.

Section 61.56(f) provides an exception to the ground training portion of the flight review requirement. Under current § 61.56(f), a person who has satisfactorily renewed their flight instructor certificate under current § 61.197 is not required to accomplish the one hour of ground training required for a flight review. Because proposed § 61.197 would contain recent experience requirements for a flight instructor certificate rather than renewal requirements, the FAA is proposing to make conforming amendments to § 61.56(f). Therefore, § 61.56(f) would except a flight instructor from the ground training requirements of a flight review if that flight instructor has met the recent experience requirements for a flight instructor certificate under § 61.197.

In addition, the FAA proposes to revise § 61.56(f) to except any persons who reinstate their flight instructor privileges from the ground training portion of the flight review by completing an approved FIRC within the three calendar month reinstatement period proposed in § 61.199(a)(1). Under the proposal, a person who reinstates their flight instructor privileges by completing a practical test under § 61.199(a)(2) would be excepted from the entire flight review. However, a person who satisfies recent flight instructor experience by satisfactorily completing an approved FIRC would be excepted from only the ground training portion of the flight review. The FAA finds that a person who reinstates their flight instructor privileges by completing an approved FIRC during the three-calendar-month reinstatement period should be given the same relief as a person who establishes recent experience by completing an approved FIRC. The FAA proposes to revise § 61.56(f) accordingly.

Currently, §§ 61.425 and 61.427 prescribe renewal and reinstatement requirements for persons who hold a flight instructor certificate with a sport pilot rating. Under § 61.425, a person who holds a flight instructor certificate with a sport pilot rating may renew that certificate in accordance with § 61.197. Section 61.427 allows a person to exchange their expired flight instructor certificate with a sport pilot rating for a new certificate with a sport pilot rating and any rating on that certificate by passing a practical test as prescribed in § 61.405(b) or § 61.183(h) for one of the ratings listed on their expired flight instructor certificate.

To ensure consistency with the proposed amendments to §§ 61.197 and 61.199, the FAA proposes to make conforming amendments to §§ 61.425 and 61.427. The FAA proposes to bifurcate § 61.425 into two paragraphs. Section 61.425(a) would govern flight instructor certificates issued without expiration dates. Section 61.425(b) would govern flight instructor certificates issued prior to the final rule becoming effective, which would contain expiration dates. Thus, § 61.425(a) would require a person who holds a flight instructor certificate with a sport pilot rating issued after the final rule’s effective date to establish recent experience in accordance with § 61.197 (*i.e.*, within the 24 preceding months, the person has satisfied one of the recent experience requirements in § 61.197(b)). For persons who hold unexpired flight instructor certificates with a sport pilot rating issued before the final rule becomes effective, § 61.425(b) would allow those persons to renew their certificate by establishing recent experience in accordance with § 61.197 prior to the expiration month listed on their flight instructor certificate.

In addition, the FAA proposes to revise § 61.427 to align with the proposed amendments to § 61.199. Therefore, proposed § 61.427 would address how to reinstate flight instructor privileges if a person fails to establish recent experience for a flight instructor certificate with a sport pilot rating. Consistent with proposed § 61.199, a person who holds a flight instructor certificate with a sport pilot rating must reinstate their flight instructor privileges by successfully completing an approved FIRC if three calendar months or less have passed since the last month of their recent experience period. Section 61.427(a) would contain this proposed requirement. If more than three calendar months have passed since the last month of the flight instructor’s recent experience period, the flight instructor

with a sport pilot rating would be required to pass a practical test in accordance with proposed § 61.427(b) to reinstate their flight instructor privileges.

## 2. Proposed Amendments to SFAR No. 100–2

Currently, SFAR No. 100–2 provides relief to U.S. military and civilian personnel who have served outside the United States in support of U.S. Armed Forces operations during some period of time beginning on or after September 11, 2001. To be eligible for the relief under SFAR No. 100–2, the person’s flight instructor certificate, airman written test report, or inspection authorization must have expired sometime between September 11, 2001, and six calendar months after returning to the United States. SFAR No. 100–2 allows these persons to present an expired flight instructor certificate to show eligibility for renewal of a flight instructor certificate under § 61.197; an expired written test report to show eligibility to take a practical test under parts 61, 63, and 65; and an expired inspection authorization to show eligibility for renewal under § 65.93. To exercise the relief provided by SFAR No. 100–2, the person must renew their flight instructor certificate or inspection authorization, as appropriate, or pass the appropriate practical test within six calendar months after returning to the United States. The FAA recognizes that a person could have multiple deployments. The FAA, therefore, notes that this SFAR provision does not allow a person to exercise the relief within six calendar months after returning from the United States following any deployment. Instead, a person must exercise the relief within the six calendar months after returning to the United States following the deployment where the flight instructor certificate, written test report, or inspection authorization expired. In addition, a person must submit required documentation to the FAA with their Airman Certificate and/or Rating Application. Currently, SFAR No. 100–2 is “effective until further notice.”

The relief provided by SFAR No. 100–2 has existed since the FAA issued SFAR No. 96 on May 6, 2002. After the terrorist attacks of September 11, 2001, many U.S. military and civilian personnel were assigned outside the United States in support of Operation Enduring Freedom. For this reason, the FAA adopted SFAR No. 96 to provide relief to a narrow range of individuals

in a narrow set of circumstances.<sup>38</sup> As a result of the continuing conflicts, the FAA superseded SFAR No. 96 with SFAR No. 100, which applied to all military and civilian personnel assigned overseas in support of any and all U.S. Armed Forces operations.<sup>39</sup> On June 30, 2005, the FAA extended SFAR No. 100 by issuing SFAR No. 100–1 with an expiration date of June 20, 2010.<sup>40</sup> The FAA subsequently replaced SFAR No. 100–1 with SFAR No. 100–2 on March 4, 2010.<sup>41</sup> The FAA issued SFAR No. 100–2 without an expiration date to ensure the U.S. personnel assigned outside of the United States, who continue to preserve, protect, and defend the American public, can obtain additional time for renewal of their flight instructor certificates, inspection authorizations, and airman written test reports.

As evident from the history of the SFAR, there is an ongoing need to retain the relief provided by SFAR No. 100–2. The relief has existed for over 19 years, and the FAA is unable to determine an expiration date for the relief because of ongoing overseas operations. Because SFAR No. 100–2 is not temporary, the FAA finds that the content of SFAR No. 100–2 would be more appropriately addressed as a new section in part 61. Therefore, the FAA is proposing to relocate and codify the contents of SFAR No. 100–2 into the regulations. Because SFAR No. 100–2 provides relief to persons under parts 61, 63, and 65, the FAA proposes to codify the contents of SFAR No. 100–2 by amending parts 61, 63, and 65.

Specifically, the FAA proposes to add new § 61.40, which would codify the general contents of SFAR No. 100–2. Then, the FAA proposes to revise various sections of parts 61, 63, and 65 by including cross-references to § 61.40 where necessary to ensure the relief of SFAR No. 100–2 is appropriately codified in the appropriate part. The FAA emphasizes that it is not proposing any substantive changes to the content of SFAR No. 100–2 other than extending the relief to include persons who have failed to establish recent flight instructor experience requirements in accordance with proposed § 61.197, which is discussed in more detail below. However, the FAA has contemplated revising the provisions that referenced the September 11, 2001

date because more than 20 years have passed since that date occurred.

The FAA proposes to relocate the content of SFAR No. 100–2 to new § 61.40. Proposed § 61.40(a) would prescribe the documents that must be presented to show eligibility to renew a flight instructor certificate, establish recent flight instructor experience, take a practical test, or renew an inspection authorization, as appropriate. Proposed § 61.40(b) would contain the requirements for a person to be deemed eligible for the relief specified in § 61.40(a). Lastly, proposed § 61.40(c) would contain the documentation requirements. The FAA notes that paragraph 3 of SFAR No. 100–2, which contains the current documentation requirements, requires a person to submit<sup>42</sup> the Airman Certificate/or Rating Application, FAA Form 8710–1 or 8710–11, as applicable, to the appropriate Flight Standards office. However, FAA Form 8710–1 is not the appropriate application for every person seeking relief under SFAR No. 100–2.<sup>43</sup> Therefore, in addition to its proposal to relocate the documentation requirements to § 61.40(c), the FAA proposes to revise the provision to require a person to complete the application appropriate to the relief sought.

Depending on the date the flight instructor certificate was issued, proposed § 61.40(a)(1) through (3) would allow flight instructors to either renew their expired flight instructor certificate or establish recent flight instructor experience in accordance with § 61.197. As previously mentioned, SFAR No. 100–2 currently provides relief to a person whose flight instructor certificate expires as a result of the person's service overseas. Because the FAA's proposal would remove the

expiration dates from flight instructor certificates and convert the flight instructor renewal requirements of § 61.197 to recent experience requirements, the FAA proposes to make conforming amendments to the existing requirements in SFAR No. 100–2. More specifically, the FAA proposes to extend the relief to persons who fail to establish the recent experience requirements of proposed § 61.197 as a result of their service in support of U.S. Armed Forces' operations. For flight instructor certificates issued after the final rule becomes effective, the person would be required to present a record demonstrating the last recent experience event accomplished under § 61.197 to show eligibility to reestablish recent experience under § 61.197. However, the FAA recognizes that there may be persons who are issued a flight instructor certificate for the first time after the final rule becomes effective that are unable to establish recent experience during their first 24 months as a flight instructor. For these persons, the FAA proposes to allow them to present a flight instructor certificate demonstrating the date of issuance to show eligibility to establish recent experience under § 61.197. The FAA proposes to codify this relief by adding new § 61.40(a)(2) and (3) and by including the necessary cross-references in proposed § 61.197(c) and (e). Proposed § 61.40(a)(1) would contain the existing relief for persons holding expired flight instructor certificates.

Proposed § 61.40(a)(4) through (6) would allow eligible persons to take a practical test under parts 61, 63, and 65 with expired written test reports. The FAA recognizes that there are several regulations throughout parts 61, 63, and 65 that require the applicant to have passed the knowledge test within the 24-calendar-month period preceding the month the applicant completes the practical test. Therefore, the FAA proposes to revise certain sections of parts 61, 63, and 65 to enable persons to exercise the relief provided by proposed § 61.40. More specifically, the FAA proposes to revise § 61.39, which contains the prerequisites for practical tests under part 61, by adding new § 61.39(e) to allow applicants for an airman certificate or rating under part 61 to take a practical test with an expired knowledge test if that applicant meets the requirements of proposed § 61.40. The FAA also proposes to include exception language referencing new § 61.39(e) in § 61.39(a), (b), and (c), which would implement the relief provided by proposed § 61.40. With respect to part 63, the FAA proposes to

<sup>38</sup> Final Rule, *Relief for Participants in Operation Enduring Freedom*, 67 FR 30524 (May 6, 2002).

<sup>39</sup> Final Rule, *Relief for U.S. Military and Civilian Personnel Who Are Assigned Outside the United States in Support of U.S. Armed Forces Operations*, 68 FR 36902 (Jun. 20, 2003).

<sup>40</sup> 70 FR 37946.

<sup>41</sup> 75 FR 9763.

<sup>42</sup> The FAA notes that currently SFAR No. 100–2 paragraph 3 requires a person to *send* the Airman Certificate and/or Rating application to the appropriate Flight Standards office. The FAA proposes to change this language to *submit* because there are now several acceptable ways in which the person may provide the FAA the application (*e.g.*, virtual conferencing tool, in-person) rather than only sending through traditional mail.

<sup>43</sup> FAA Form 8710–1 is the application for pilots, flight instructors, and ground instructors. However, SFAR No. 100–2 also provides relief for persons seeking to take practical tests under parts 63 and 65 with expired written test reports and relief for a person seeking to renew an expired inspection authorization under part 65. Therefore, a person seeking relief under the requirements of SFAR No. 100–2 should complete and submit the application appropriate to the relief sought, which may be FAA Form 8710–1, 8400–3, 8610–1, or 8610–2. FAA Form 8400–3 is the application for flight engineers, flight navigators, aircraft dispatchers, and control tower operators. FAA Form 8610–1 is the mechanic's application for inspection authorization. FAA Form 8610–2 is the application for mechanics, repairmen, and parachute riggers.

revise §§ 63.35(d) and 63.53 to allow applicants for flight engineer certificates or ratings and applicants for flight navigator certificates to take their practical tests under part 63 with expired written test reports in accordance with § 61.40.<sup>44</sup> With respect to part 65, the FAA proposes to revise §§ 65.55 and 65.71<sup>45</sup> to allow applicants for aircraft dispatcher certificates and mechanic certificates or ratings to take their practical tests under part 65 with expired written test reports in accordance with § 61.40. Proposed § 65.55(b) and (c) add an exception to

allow eligible persons to take a practical test for an aircraft dispatcher certificate under part 65 with an expired written test report in accordance with § 61.40. Proposed § 65.75(d) excepts eligible persons from the requirement that a certificated mechanic must pass the required tests within a period of 24 months. These revisions would ensure the relief currently provided by SFAR No. 100–2 would remain unchanged under the FAA’s proposal to relocate and codify the relief in the regulations. Lastly, proposed § 61.40(a)(6) would allow persons to renew an expired

inspection authorization under § 65.93. Because § 65.93 does not currently allow for this relief, the FAA proposes to add new paragraph (d) and to include exception language in current § 65.93(a) to expressly allow an eligible person to renew an expired inspection authorization under part 65 in accordance with § 61.40. The following table shows which regulations the FAA proposes to revise to enable the codification of SFAR No. 100–2. The table also shows where the FAA proposes to codify each provision of SFAR No. 100–2.

SUMMARY OF PROPOSED CHANGES TO SPECIAL FEDERAL AVIATION REGULATION NO. 100–2

Description of proposed revision	Proposed sections of 14 CFR parts 61, 63, and 65	Current section/paragraph of SFAR No. 100–2
Excepts eligible persons from the requirement to have passed the required knowledge test within the 24 calendar month period preceding the month the applicant completes the practical test for an airman certificate under part 61.	§ 61.39(a), (b), (c) and (e) .....	Section 1. <i>Applicability</i> , paragraph (a).
Codifies the relief provided by current SFAR No. 100–2 and expands the relief to include persons who have failed to meet the recent experience requirements of proposed § 61.197.	§ 61.40(a) .....	Section 1. <i>Applicability</i> , paragraphs (a) through (c).
Codifies the eligibility requirements for persons seeking relief under SFAR No. 100–2.	§ 61.40(b) .....	Section 2. <i>Eligibility</i> , paragraphs (a) through (c).
Codifies the documentation required to accompany the person’s Airman Certificate and/or Rating Application, which must show the date of assignment outside the United States and the date of return to the United States.	§ 61.40(c) .....	Section 3. <i>Required documents</i> , paragraphs (a) through (c).
Excepts eligible persons from the requirement to establish recent flight instructor experience at least once every 24 calendar months.	§ 61.197(c), (e) and (f) .....	N/A.
Adds an exception to allow eligible persons to take a practical test for a flight engineer certificate or rating under part 63 with an expired written test report in accordance with § 61.40.	§ 63.35(d) .....	Section 1. <i>Applicability</i> , paragraph (b).
Adds an exception to allow eligible persons to take a practical test for a flight navigator certificate under part 63 with an expired written test report in accordance with § 61.40.	§ 63.53(b) and (c) .....	Section 1. <i>Applicability</i> , paragraph (b).
Adds an exception to allow eligible persons to take a practical test for an aircraft dispatcher certificate under part 65 with an expired written test report in accordance with § 61.40.	§ 65.55(b) and (c) .....	Section 1. <i>Applicability</i> , paragraph (c).
Excepts eligible persons from the requirement that a certificated mechanic must pass the required tests within a period of 24 months.	§ 65.71(b) .....	Section 1. <i>Applicability</i> , paragraph (c).
Adds language to allow eligible persons to take a practical test for a mechanic certificate or rating under part 65 with an expired written test report in accordance with § 61.40.	§ 65.75(d) .....	Section 1. <i>Applicability</i> , paragraph (c).
Adds an exception to the inspection authorization renewal requirements to allow eligible persons to renew expired inspection authorizations under part 65 in accordance with § 61.40.	§ 65.93(a) and (d) .....	Section 1. <i>Applicability</i> , paragraph (c).

The FAA recognizes that its proposed relocation and codification of SFAR No. 100–2 may not be the best approach because part 61 does not apply to persons taking practical tests under parts 63 or 65 or to a person renewing an authorization inspection under § 65.93. The FAA proposes to include the substantive requirements of current SFAR No. 100–2 in § 61.40 and then cross-reference those requirements in parts 63 and 65 because current SFAR No. 100–2 is located in part 61. Parts 63

and 65 currently contain editorial notes leading persons to the relief provided in SFAR No. 100–2 under part 61.

The FAA considered an alternative approach to codify the relief currently provided by SFAR No. 100–2 under parts 61, 63, and 65. More specifically, parts 61, 63, and 65 would each contain a new section that would codify the relief currently provided by SFAR No. 100–2 appropriate to the persons regulated under the respective part. For example, § 61.40 would allow persons

to renew an expired flight instructor certificate, establish recent flight instructor experience, and take practical tests for airman certificates under part 61, provided the eligibility and documentation requirements are satisfied. Part 63 would contain a new section that would allow a person to take a practical test under part 63 with an expired written test report, provided the eligibility and documentation requirements are satisfied. Lastly, part 65 would contain a new section that

<sup>44</sup> Additionally, the FAA proposes to revise § 63.35(c) to remove a gender reference and clarify that the 24 month period is calendar months.

<sup>45</sup> The FAA also proposes to revise § 65.71(a)(4) to remove a gender reference and clarify that the 24 month period is calendar months.

would allow a person to renew an expired inspection authorization under § 65.93 or take a practical test under part 65 with an expired written test report, provided the eligibility and documentation requirements are satisfied. While the FAA considered this approach, the FAA has determined that the proposal integrates the relief set forth in SFAR 100–2 into the permanent regulations in the most effective and streamlined manner.

### C. Instructor Qualifications for Training Initial Flight Instructor Applicants

Section 61.195(h) contains the qualifications for flight instructors seeking to instruct initial flight instructor applicants. Currently, under § 61.195(h)(2), to provide flight training to an initial flight instructor applicant under part 61, the flight instructor must, in addition to other requirements,<sup>46</sup> have held a flight instructor certificate for at least 24 months and have given at least 200 hours of flight training as a flight instructor for an airplane, rotorcraft, or powered-lift rating (or 80 hours in the case of glider instruction). A person serving as a flight instructor in an FAA-approved course for initial flight instructor applicants has the option of meeting either the aforementioned requirements or the requirements of § 61.195(h)(3). Currently, § 61.195(h)(3) allows a person to serve as a flight instructor in an FAA-approved course for initial flight instructor applicants if that person has trained and endorsed at least five applicants for a practical test,<sup>47</sup> at least 80 percent of those applicants passed the practical test on their first attempt, and the flight instructor has given at least 400 hours of flight training for training in an airplane, rotorcraft, or powered lift rating (or 100 hours of flight training for training in a glider rating).

The FAA initially adopted the 24-month experience requirement in 1973.<sup>48</sup> In the NPRM that published on March 23, 1972, the FAA proposed to require an applicant for a flight instructor certificate to receive training from either a person holding a gold seal flight instructor certificate or a person who has held a flight instructor certificate for 24 months and who has

given at least 200 hours of flight instruction (or 80 hours in the case of glider instruction).<sup>49</sup> In proposing these experience requirements, the FAA explained that these qualifications were comparable to having a gold seal flight instructor certificate.<sup>50</sup> However, in the 1973 final rule, the FAA withdrew the proposal to establish a gold seal flight instructor certificate in the regulations.<sup>51</sup> In that final rule, the FAA adopted § 61.187, which required an applicant for a flight instructor certificate to receive training from a flight instructor who has held a flight instructor certificate for 24 months and who has given at least 200 hours of flight instruction (or 80 hours in the case of glider instruction).<sup>52</sup>

In 1997, the FAA adopted a final rule that relocated the qualifications for flight instructors seeking to train initial flight instructor applicants from § 61.187 to § 61.195(h).<sup>53</sup> The 1997 final rule added qualification requirements for ground instructors in § 61.195(h)(1), placed the existing 24 month experience and requisite flight hour requirements in § 61.195(h)(2), and added a new qualification option in § 61.195(h)(3) for flight instructors serving in an FAA-approved course. The alternative qualifications of § 61.195(h)(3) required a flight instructor to have trained and endorsed at least five persons for a pilot certificate or rating practical test; have a record reflecting that at least 80 percent of those persons passed that practical test on their first attempt; and have given a minimum amount of flight training. In the case of airplanes, the minimum amount of flight training given must have been 400 hours; in the case of gliders, the minimum amount of flight training given must have been 100 hours. The FAA intended for § 61.195(h)(3) to allow persons who held a flight instructor certificate for less than 24 months to give training to flight instructor candidates.<sup>54</sup> The FAA explained that some full-time flight instructors may meet the 400-hour requirement before accumulating 24

months of training experience, and such instructors should be allowed to train flight instructor candidates within the structure of an approved training program. The FAA determined that the alternative qualifications of § 61.195(h)(3) provided at least an equivalent level of safety to the 24 month experience and minimum flight time requirements.

On April 20, 2017, the FAA assigned the Aviation Rulemaking Advisory Committee (ARAC) the task to evaluate the FAA's regulations in 14 CFR to determine any and all regulations that should be repealed, replaced, or modified and to provide feedback on the regulatory actions identified in the FAA's regulatory agenda.<sup>55</sup> The ARAC submitted its Addendum Recommendation Report to the FAA on September 12, 2017.<sup>56</sup> As part of this report, the ARAC recommended the FAA modify § 61.195(h)(2)(iii) because the current requirement that the flight instructor must have held their flight instructor certificate for at least 24 months is outdated, unnecessary, ineffective, and inhibits job creation. The ARAC recommended the FAA revise § 61.195(h)(2)(iii) by adding the option for a flight instructor to complete an FAA-approved standardization course at a part 141 pilot school that provides instruction on the intricacies of training a flight instructor applicant. The FAA notes that the ARAC's primary rationale for changing the requirement was based on the shortage of flight instructors qualified to instruct initial flight instructor applicants.<sup>57</sup> The ARAC explained that the flight instructor profession is a transient position for the vast majority of pilots on their way to fly jets professionally and the turnover is approaching 90% annually.

The National Air Disaster Foundation (NADF) and the Air Line Pilots Association International (ALPA) submitted dissenting opinions, strongly opposing the ARAC recommendation to eliminate the existing regulation that

<sup>55</sup> Notice of a new task assignment for the Aviation Rulemaking Advisory Committee (ARAC), *Aviation Rulemaking Advisory Committee (ARAC)—ARAC Input To Support Regulatory Reform of Aviation Regulations—New Task*, 82 FR 19783 (Apr. 28, 2017).

<sup>56</sup> *ARAC Input to Support Regulatory Reform of Aviation Regulations—ARAC Addendum Report* (Sept. 12, 2017).

<sup>57</sup> The FAA notes that the ARAC's recommendations are economic-based. The FAA does not have the statutory authority to prescribe economic regulations. See *The Federal Aviation Act of 1958*, 72 Stat. 731 (establishing the FAA and giving it the authority to regulate safety); *The Civil Aeronautics Board Sunset Act of 1984*, 98 Stat. 1703 (transferring economic authority from the Civil Aeronautics Board to the Secretary of Transportation).

<sup>49</sup> NPRM, *Certification: Pilots and Flight Instructors*, 37 FR 6012, 6015 (Mar. 23, 1972).

<sup>50</sup> 37 FR at 6015.

<sup>51</sup> 38 FR at 3160. The majority of commenters were opposed to establishing a gold seal flight instructor certificate. They explained, among other things, that there should be no distinction between instructors and that flight instructors should either be qualified or they should not be certificated as flight instructors.

<sup>52</sup> 38 FR at 3177.

<sup>53</sup> Final Rule, *Pilot, Flight Instructor, Ground Instructor, and Pilot School Certification Rules*, 62 FR 16220, 16275 (Apr. 4, 1997).

<sup>54</sup> NPRM, *Pilot, Flight Instructor, Ground Instructor, and Pilot School Certification Rules*, 60 FR 41160, 41183 (Aug. 11, 1995).

<sup>46</sup> The additional requirements include satisfying the requirements prescribed in § 61.183 and holding the appropriate flight instructor certificate and rating. 14 CFR 61.195(h)(2)(i) and (ii).

<sup>47</sup> The practical test must be for a pilot certificate, flight instructor certificate, ground instructor certificate, or an additional rating. 14 CFR 61.195(h)(3)(ii).

<sup>48</sup> Final Rule, *Pilot and Flight Instructor Certificates and Ratings and Check Requirements for Pilots-in-Command*, 38 FR 3156 (Feb. 1, 1973).

requires at least 24 months of flight instructor experience. The NADF explained that flight instructors must be experienced and should not be students teaching and supervising other students. ALPA stressed that the ARAC's proposal is based upon an economic basis and makes no mention of what safety impacts were considered. ALPA stated that the 24-month experience requirement is a time-proven regulation that helps ensure flight instructor candidates are taught how to instruct others only by pilots who have a level of experience and competence serving as flight instructors themselves. ALPA believed the 24-month experience requirement leads to experience, knowledge, professionalism, expertise, and skill that make an individual a better instructor. In addition, ALPA stated that any real or perceived shortage of instructors is an inappropriate justification for reducing instructor qualifications and reduces the quality of training and, ultimately, safety.

The FAA recognizes that the current 24-month experience requirement may lead some flight instructors to gain the experience, knowledge, and skill necessary to instruct initial flight instructor candidates during that 24-month timeframe. However, the FAA finds that the 24-month experience requirement is limiting because it does not account for persons who may have achieved the level of proficiency required to instruct initial flight instructor applicants prior to those 24 months. For example, before accumulating 24 months of experience, some full-time flight instructors may have provided an extensive amount of flight training that exceeds the 200-hour flight time requirement, established a successful record of training as demonstrated by the passage rate on practical tests by those applicants the instructor has trained, and obtained more experience than part-time instructors who have held their certificate for 24 months. The FAA has determined there are alternative methods to assess whether a flight instructor is qualified to instruct initial flight instructor applicants.

Accordingly, the FAA proposes adding two new qualification options for persons seeking to instruct initial flight instructor applicants. The first option would allow flight instructors to satisfy the qualification requirements by training and endorsing, during the preceding 24 calendar months, at least five applicants for a practical test, with at least 80 percent passing the practical test on their first attempt. The second option would allow flight instructors to

attain qualification by successfully completing an FAA-approved flight instructor enhanced qualification training program (FIEQTP) after giving a requisite amount of flight training to pilot applicants. The following sections discuss the proposed qualification requirements and the proposed curriculum requirements for an approved FIEQTP.

#### 1. Flight Instructor Qualifications (§ 61.195(h)(2))

Currently, § 61.195(h)(2) contains the qualification requirements for persons instructing initial flight instructor applicants under part 61, and § 61.195(h)(3) contains the qualification requirements for persons serving as flight instructors under FAA-approved courses. The FAA finds it is unnecessary to make the qualification requirements dependent on whether the flight instructor provides training under part 61, 141, or 142. Flight instructors are either qualified to instruct initial flight instructor applicants or they are not, regardless of which 14 CFR part they are instructing under. Therefore, unlike the current qualification requirements,<sup>58</sup> the FAA proposes to apply the same qualification requirements to all flight instructors. As a result, the FAA proposes to restructure current § 61.195(h). Proposed § 61.195(h)(1) would contain the qualifications for persons providing ground training.<sup>59</sup> Proposed § 61.195(h)(2) would contain the qualifications for persons providing flight training, including persons serving as flight instructors under FAA-approved courses. In addition, as discussed in more detail below, proposed § 61.195(h)(3) would contain the requirements for an FAA-approved FIEQTP.

Consistent with the current regulations, § 61.195(h)(2) would require a flight instructor who provides

<sup>58</sup> Currently, § 61.195(h)(3) contains qualification requirements only for persons serving as flight instructors in FAA-approved courses under parts 141 or 142.

<sup>59</sup> Subpart I prescribes the requirements for the issuance of ground instructor certificates and ratings, the conditions under which those certificates and ratings are necessary, and the limitations upon such certificates and ratings; however, proposed § 61.195(h)(1) prescribes qualifications for persons providing ground training, one option of which is to hold a ground instructor certificate, subject to certain experience requirements. The FAA finds that a conforming amendment to new § 61.215(e) would aid ground instructors in understanding the requirements needed to provide ground training to initial flight instructor applicants, given proposed § 61.195(h)(1) is situated in Subpart H, Flight Instructors Other than Flight Instructors With a Sport Pilot Rating. This is simply a clarifying amendment to subpart H and does not add additional requirements.

flight training to an initial applicant for a flight instructor certificate to meet the eligibility requirements of § 61.183 and hold the appropriate flight instructor certificate and rating. The FAA also proposes to require the flight instructor to meet the requirements of the part under which the flight training is conducted. The FAA notes that flight instructors are already required to comply with the requirements of the part under which they are providing flight training. However, because § 61.195(h)(2) would apply to persons serving as flight instructors under parts 61, 141, and 142, including such language in the regulation would add clarity. In addition to meeting these qualifications, a flight instructor would be required to meet one of the qualification options prescribed in § 61.195(h)(2)(i) through (iii).

The first qualification option, in proposed § 61.195(h)(2)(i), would contain the requirements that currently exist in § 61.195(h)(2). Thus, under § 61.195(h)(2)(i), a flight instructor would be qualified to instruct an initial flight instructor applicant if that flight instructor has held their flight instructor certificate for at least 24 calendar months and has given at least 200 hours of flight training as a flight instructor (or 80 hours in the case of glider instruction). The FAA proposes to specify "calendar" months for clarity and consistency with the requirement that a ground instructor has held their certificate for at least 24 calendar months in current and retained § 61.195(h)(1)(i).

The FAA recognizes industry's concerns about these requirements. As previously mentioned, the ARAC believed the experience requirements are ineffective and outdated; however, dissenting opinions emphasized the importance of having experienced flight instructors train initial flight instructor applicants. Furthermore, in the 1997 final rule, AOPA and National Association of Flight Instructors (NAFI) opposed the existing requirement that a pilot be a flight instructor for at least 24 months before qualifying to teach an initial flight instructor applicant.<sup>60</sup> These commenters stated that a minimum amount of instructional experience requirement may be appropriate, but the FAA had failed to prove the need for the specified 200 hours or 24 months of experience required. The FAA acknowledged these comments but explained that they were out of scope because the FAA did not propose changes to the provisions in the existing rule. In this NPRM, the FAA

<sup>60</sup> 62 FR at 16275.

proposes to add alternatives to the 24-calendar-month experience requirement.

The second qualification option, in proposed § 61.195(h)(2)(ii), would contain the first proposed alternative to the fixed 24 calendar month experience requirement discussed above. Under proposed § 61.195(h)(2)(ii), a flight instructor would be qualified to instruct an initial flight instructor applicant if that flight instructor has trained and endorsed, during the preceding 24 calendar months, at least five applicants for a practical test and at least 80 percent of those applicants passed that test on their first attempt. The FAA recognizes that this option is currently available to persons serving as flight instructors under FAA-approved courses, provided they have also given at least 400 hours of flight training as a flight instructor (or 100 hours in the case of glider instruction).<sup>61</sup> Under this proposal, however, the FAA finds it unnecessary to require flight instructors to have given a certain amount of flight training in addition to meeting the standard described above. The FAA finds that any flight instructor who has trained and endorsed at least five applicants for a practical test will have given an extensive amount of flight training that surpasses the 200-hour requirement (or 80 hours in the case of glider instruction), which the FAA proposes to require in the other qualification options. Furthermore, the FAA concludes that the proposed standard of training at least five applicants for a practical test and having at least 80 percent of those applicants pass on their first attempt would more adequately measure a flight instructor's proficiency and instructional ability. For example, rather than holding a flight instructor certificate for 24 calendar months, a flight instructor would be required to have a demonstrated record of success training flight students, which could be attained in the same or less time (*i.e.*, 24 calendar months). Additionally, that flight instructor will have attained sufficient experience by providing flight training to at least five applicants<sup>62</sup> for a practical test. The FAA notes that all applicants that the flight instructor has trained and endorsed in that time period will be counted for the purposes of calculating the pass rate.<sup>63</sup>

<sup>61</sup> 14 CFR 61.195(h)(3).

<sup>62</sup> It is beneficial for a flight instructor to be exposed to an array of different applicant's learning styles and abilities; therefore, it is understood that the five applicants are five discrete applicants.

<sup>63</sup> As an example, suppose a flight instructor began instructing 18 months ago, and the flight instructor instructed and endorsed a total of 8

The third qualification option, in proposed § 61.195(h)(2)(iii), would contain the second proposed alternative to the 24 calendar month experience requirement. Under this qualification option, a flight instructor may qualify to instruct initial flight instructor applicants if the flight instructor has given at least 200 hours of flight training as a flight instructor (or 80 hours in the case of glider instruction) and has graduated from an FAA-approved FIEQTP conducted under parts 141 or 142.

Prior to taking the FIEQTP, the flight instructor would be required to have given at least 200 hours of flight training in an airplane, rotorcraft, or powered-lift (80 hours if training in a glider). The FAA finds it necessary to require flight instructors to have given a minimum amount of flight training to ensure the flight instructor has obtained a sufficient amount of experience flight instructing. For example, a new flight instructor with no experience would gain little value from taking only the approved FIEQTP as the new flight instructor would have no real world experience to inform the training. Furthermore, the FAA finds that flight instructors who have given at least 200 hours of flight training as a flight instructor before taking the FIEQTP would have established a teaching foundation that would reinforce and contribute to the positive transfer of knowledge and skills associated with the course. Therefore, before taking the FIEQTP, the new flight instructor must have acquired hands-on experience during which the new flight instructor served as a flight instructor in the aircraft. The experience obtained from providing 200 hours of flight training (or 80 hours in the case of glider instruction) and the knowledge and skills acquired from completing the FIEQTP would, together, prepare and qualify the flight instructor to instruct initial flight instructor applicants.

The FAA-approved FIEQTP would be required to satisfy the requirements proposed in § 61.195(h)(3), which are discussed below. This proposed training program would be focused on developing a flight instructor's ability to instruct initial flight instructor applicants. The FAA notes that a person who completes this course would be required to hold a flight instructor certificate. Therefore, persons who take this course will have already obtained

applicants. All 8 applicants' performance on the practical test would be calculated into the flight instructor's pass rate. A flight instructor cannot simply choose 5 applicants who passed out of all applicants instructed and endorsed to calculate in the flight instructor's pass rate.

the training and aeronautical experience required for and will have already passed the flight instructor practical test. The FIEQTP is not intended to simply repeat the foundational training a person receives in preparation for the flight instructor practical test. The FAA notes that when a person is training in preparation for the flight instructor practical test, that person is learning how to teach other pilots how to fly. The intent of the FIEQTP is to train persons who already hold their flight instructor certificate how to teach other pilots how to provide instruction. Therefore, the FIEQTP would be designed to enhance the flight instructor's instructional ability and to prepare that flight instructor on how to instruct initial flight instructor applicants how to flight instruct, not simply how to fly. The specific requirements for the training program are discussed in the next section.

The FAA notes that a flight instructor who chooses to meet the qualification method in either § 61.195(h)(2)(i) or (iii) is required to have given at least 200 hours of flight training if training for an airplane, helicopter, or powered-lift rating and at least 80 hours of flight training if training for a glider rating. The FAA recognizes that flight instructors may hold multiple category and/or class ratings on their flight instructor certificates. The provisions in proposed § 61.195(h)(2)(i)(A) and (B), which require a flight instructor to have given at least 200 hours of flight training and 80 hours of flight training, respectively, currently exist in § 61.195(h)(2)(iv) and (v). The current provisions, and thus the proposed provisions, do not expressly require the flight training to have been given in a specific category and/or class of aircraft.<sup>64</sup> Instead, the 200-hour and 80-hour requirements are based on experience given as a flight instructor regardless of the category or class of aircraft in which the training was provided. Therefore, a flight instructor with multiple category and/or class ratings on their flight instructor certificate may use the total hours of flight training given as a flight instructor to meet the 200-hour requirement in proposed § 61.195(h)(2)(i)(A) and the 80-hour requirement in proposed § 61.195(h)(2)(i)(B).

<sup>64</sup> The FAA notes that many of the FAA's regulations are category and class specific. If the FAA intended for the flight instruction given pursuant to § 61.195(h)(2)(iv) and (v) to be category and class specific, the FAA would have expressly required that.



2. Flight Instructor Enhanced Qualification Training Program (§ 61.195(h)(3); § 141.11; Part 141, Appendix K)

As previously mentioned, the FAA proposes a new training program intended to develop a flight instructor's ability to instruct initial flight instructor applicants. The FIEQTP would be a standalone course, which would be submitted to the FAA for review to ensure standardization and FAA approval.

The FAA proposes to allow pilot schools and training centers certificated under parts 141 and 142, respectively, to conduct FIEQTP. Part 141 pilot schools (including part 141 provisional pilot schools) and part 142 training centers have the structure, systems, and management personnel required to develop, implement, and maintain FAA-approved training programs. This structure does not typically exist and is not required in part 61 training. Furthermore, because the FAA certifies part 141 pilot schools and part 142 training centers, the FAA has more oversight of the program. Greater oversight provides opportunities to observe the effectiveness of an approved training program and to require amendments to the training program, as needed, to ensure it achieves the course objectives.

Proposed § 61.195(h)(3) would require the proposed training program to meet specific ground and flight training requirements.<sup>65</sup> The FAA proposes to require at least 25 hours of ground instruction on specific subjects, which are outlined in § 61.195(h)(3)(i)(A) through (D). The proposed subjects are intended to reinforce the areas critical to flight instruction while focusing specifically on how to teach these subjects to initial flight instructor applicants. For example, a flight instructor would receive ground instruction on flight instructor responsibilities, functions, lesson planning, and risk management. The FAA recognizes that flight instructors will have already received ground instruction on these topics while training in preparation for the flight instructor practical test. However, the FAA notes that the training in

preparation for the flight instructor practical test is focused on training pilots, not on training initial flight instructor applicants. As a result, new flight instructors have not received specialized training that prepares them to instruct initial flight instructor applicants. The FIEQTP should reinforce the subject areas specified in § 61.195(h)(3)(i) to ensure a broader knowledge and understanding of the concepts, which would develop the new flight instructor's knowledge, skill, and ability to teach the concepts to another person. Specifically, the approved course would teach the instructor how to instruct an initial flight instructor applicant on these subjects. Furthermore, the flight instructor would learn enhanced methods, procedures, and techniques that the flight instructor can use when instructing an initial flight instructor applicant, including methods to detect deficient knowledge, training, and performance. At the conclusion of the ground training, each flight instructor would be required to satisfactorily complete an end-of-course written test on the ground training subjects in § 61.195(h)(3)(i). The end-of-course written test, proposed in new § 61.195(h)(3)(iii), is intended to evaluate the flight instructor's knowledge and understanding of the subject areas to determine whether that flight instructor is deemed qualified to provide ground instruction to initial flight instructor applicants.

With respect to flight training, the FIEQTP would be required to include at least 10 hours of flight training on the specific areas, which are outlined in § 61.195(h)(3)(ii)(A) through (E). The proposed flight training is intended to focus on developing the knowledge, skills, and ability necessary to train someone on how to provide flight training to an initial flight instructor applicant. For example, among these proposed tasks, the FAA would require the flight training to include scenario-based training to develop the flight instructor's ability to instruct an initial flight instructor applicant how to satisfactorily perform the procedures and maneuvers while giving effective flight training. The proposed flight training would also ensure the flight instructor has sufficient instructional knowledge and proficiency to teach an initial flight instructor applicant about abnormal and emergency procedures. For flight training conducted in airplanes, these procedures would include stall awareness, spin entry, spins, and spin recovery procedures.

However, the FAA recognizes that flight training in other aircraft, such as helicopters and powered-lift, would

include flight training in abnormal and emergency procedures specific to the category, class, and type, if class or type is applicable, of aircraft being flown. The FAA also finds it necessary to include flight training specific to risk management and the potential results of improper, untimely, or non-execution of safety measures. The FAA finds that a sufficient understanding of these areas, including how to detect improper and insufficient transfer of instructional knowledge, training, and performance, is critical to flight training. The flight training would also train flight instructors how to evaluate initial flight instructor applicants to detect areas in which the flight instructor applicant needs more training and to detect any personal characteristics of the initial flight instructor applicant that could adversely affect safety. At the conclusion of the flight training, each flight instructor would be required to satisfactorily complete an end-of-course instructional proficiency flight test on the flight areas in § 61.195(h)(3)(ii). Similar to the end-of-course written test, the proficiency test, which is also proposed in new § 61.195(h)(3)(iii), is intended to evaluate whether the flight instructor has acquired the necessary skills to provide flight training to initial flight instructor applicants.

The proposed ground subjects and flight tasks outlined in § 61.195(h)(3)(i) and (ii) are intended to be broad areas of instruction to give the FAA and industry flexibility in the development of an approved FIEQTP. The FAA proposes to publish an advisory circular to accompany the ground and flight training requirements of § 61.195(h)(3). This proposed advisory circular would provide guidance to part 141 pilot schools and part 142 training centers to assist these certificated entities in developing approved training programs that satisfy the requirements of § 61.195(h)(3). A copy of this proposed advisory circular has been placed in the docket for this rulemaking.

The FAA finds that requiring the training program to include 25 hours of ground training and 10 hours of flight training would ensure standardization among the training programs. It would also ensure that each student receives the necessary amount of training and experience in the subjects and tasks that are critical to flight instructing initial flight instructor applicants. The FAA has determined it would take 25 hours of ground instruction for a flight instructor to acquire a sufficient understanding of the subject areas specified in § 61.195(h)(3)(i). Similarly, the FAA has determined it would take 10 hours of flight training on the tasks

<sup>65</sup> Training provider applicants should focus their program on a particular aircraft category rating (e.g., flight instructor airplane, rotorcraft, or glider). Enrollees should seek the appropriate FIEQTP that corresponds to the aircraft category rating held on their flight instructor certificate. Enrollees who hold more than one aircraft category and class, if a class is required, on their flight instructor certificate need only satisfy one FIEQTP course for one of the aircraft category and class ratings held on that person's flight instructor certificate.



identified in § 61.195(h)(3)(ii) for a flight instructor to develop the skills and knowledge necessary to instruct an initial flight instructor applicant.

The FAA proposes to add § 61.195(h)(3)(iv) to allow the flight training to be completed in either a full flight simulator (FFS) or flight training device (FTD). Consistent with the current requirements of §§ 61.4, 141.41, and 142.59, proposed § 61.195(h)(3)(iv) would require the FFS or FTD to be qualified and maintained in accordance with part 60 (or be a previously qualified device)<sup>66</sup> and be approved for the tasks and maneuvers. The FAA notes that the pilot schools and training centers certificated under parts 141 and 142, respectively, would also be required to comply with any additional FFS or FTD requirements contained in the part under which the FAA-approved course is conducted.<sup>67</sup> The proposal would allow the entirety of flight training specified in § 61.195(h)(3)(ii) to be conducted in an FSTD because FSTDs are evaluated and qualified to meet standards of fidelity to the actual performance of an aircraft.

In addition, the FAA proposes to add § 61.195(h)(3)(v) to allow a person to use up to 5 hours of training received in an advanced aviation training device (AATD) to meet the flight training requirements of § 61.195(h)(3)(ii) for part 141 schools.<sup>68</sup> Aviation training devices (ATDs) consist of basic aviation training devices (BATDs) and AATDs.<sup>69</sup> The flight training specified in § 61.195(h)(3)(ii) should be conducted in a realistic aircraft flight deck. The design features of the AATD provide a more adequate training platform for both procedural and operational performance tasks specific to the FIEQTP flight training requirements than those of a BATD flight deck layout. The FAA is, therefore, proposing to allow a person to credit a portion of the flight training specified in § 61.195(h)(3)(ii) in an AATD, which utilizes enhanced aircraft flight deck design, ergonomic features, and performance characteristics beyond those of the BATD. The proposal would limit the amount of flight training in an

AATD to a maximum of 5 hours because, unlike FSTDs, the FAA does not evaluate and qualify AATDs to meet standards of fidelity to the actual performance of an aircraft. Proposed § 61.195(h)(3)(v) would require the AATD to be approved by the Administrator pursuant to § 61.4(c), which will be designated by the AATD's letter of authorization, including any conditions and limitations of such. In addition, the pilot schools certificated under part 141 would be required to use the AATD in accordance with the requirements in part 141.

Instructors who teach initial flight instructor applicants are required to attain a higher level of qualification to do so. Likewise, those individuals teaching the FIEQTP should be qualified at a higher level than the minimum qualifications required to be an instructor for a part 141 pilot school or part 142 training center. Therefore, the FAA proposes three qualification groups to be eligible to be an instructor of the FIEQTP, proposed in new § 61.195(h)(3)(vi). The first two include serving as a chief instructor or assistant chief instructor in a part 141 pilot school or serving as a training center program manager or assistant training center program manager of a part 142 training center. Additionally, the FAA recognizes that a flight instructor may hold the qualifications to be a chief instructor and/or assistant chief instructor but may not hold the title for reasons unrelated to their instruction abilities. Therefore, the FAA proposes to permit those instructors who meet at least the qualifications of an assistant chief instructor, pursuant to § 141.36(d), to teach the course.

Finally, the FAA is proposing § 61.195(h)(3)(vii) to require part 141 pilot schools or part 142 training centers to issue a graduation certificate to each flight instructor who successfully completes the FIEQTP. The FAA notes that the requirement to issue a graduation certificate to each student who completes an approved course of training already exists in § 141.95 for part 141 pilot schools. However, a corresponding requirement does not exist in part 142. Therefore, the FAA seeks to ensure all flight instructor applicants who successfully complete the FIEQTP receive a graduation certificate to show eligibility to instruct initial flight instructor applicants, regardless of whether the program is conducted under part 141 or part 142.

To allow part 141 pilot schools to provide the FIEQTP, the FAA proposes to revise § 141.11 by adding the training

program to the list of special preparation courses in § 141.11(b)(2). The FAA also proposes to add the new training program to appendix K of part 141, which prescribes the minimum curriculum for the special preparation courses listed in § 141.11.

During the course of this rulemaking, the FAA identified an unintentional omission that it proposes to correct in § 141.11. Specifically, in 2011<sup>70</sup> the FAA added appendix M to part 141, which prescribes the minimum curriculum for a combined private pilot certification and instrument rating course required under this part for airplane single-engine, airplane multiengine, rotorcraft helicopter, and powered-lift ratings. However, while appendix M was adopted into part 141, the course was not added to the list of pilot school ratings that may be issued to an applicant for a pilot school certificate or provisional pilot school certificate in § 141.11. Therefore, the FAA proposes to correct this omission by adding new § 141.11(b)(4). This is simply a correctional amendment to part 141 and does not add additional requirements upon pilot schools or provisional pilot schools.

Appendix K of part 141 contains limitations for special preparation courses utilizing FFSs and FTDs that are more restrictive than § 61.195(h)(3)(iv) and (v) permit. Specifically, paragraph 4.(b) of appendix K provides that an FFS may only be credited for a maximum of 10% of the total flight training hour requirements of the approved course, and paragraph 4.(c) provides that an FTD may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course. However, proposed § 61.195(h)(3)(iv) permits all flight training hours to occur in an FFS and 5 hours of flight training to occur in an FTD. Therefore, to eliminate the conflict between the provisions, paragraph 4.(b) is revised to except the FIEQTP from the FFS credit limitations of appendix K, and paragraph 4.(c) is revised to except the FIEQTP from the FTD credit limitations of appendix K.

Additionally, part 141 prescribes the circumstances under which ATDs may be utilized for flight training credit. However, appendix K of part 141 only contemplates the use of an FFS and an FTD for special preparation flight training, not an ATD. Because an AATD

<sup>66</sup> The requirements for previously qualified FSTDs are contained in 14 CFR 60.17.

<sup>67</sup> See 14 CFR 141.41 and 142.59.

<sup>68</sup> Part 142 does not currently contemplate the use of ATDs in training centers. See § 142.59.

<sup>69</sup> See AC 61-136, as revised, "FAA Approval of Aviation Training Devices and Their Uses for Training and Experience" (providing information and guidance for ATD manufacturers seeking FAA approval of AATDs and BATDs and for persons seeking to use a BATD or AATD for certain activities involving pilot training and experience).

<sup>70</sup> Final Rule, *Pilot in Command Proficiency Check and Other Changes to the Pilot and Pilot School Certification Rules*, Aug. 31, 2009 (74 FR 44779).

may be used in flight training for FIEQTs, the FAA proposes to revise appendix K, paragraph 4. Specifically, paragraph 4.(a) would include a provision that only permits an FIEQTP to utilize AATDs in accordance with appendix K, paragraph 14, and § 61.195(h)(3)(v). The FAA emphasizes that this allowance of flight training in ATDs will not be expanded to other appendix K special preparation courses in this proposal.

The FAA notes that no change is needed to allow part 142 training centers to provide the FIEQTP because the applicability provision in part 142 permits part 142 training centers to provide training required by 14 CFR part 61. The FAA recognizes that part 142 training centers generally provide training under part 61 for pilots seeking type ratings in specific turbine and heavy turbine aircraft and training for pilots serving part 119 certificate holders as part of commercial operator and air carrier training programs. Unlike part 141 pilot schools that conduct flight training in light aircraft, part 142 training centers largely conduct flight training on the ground in FFSs and FTDs qualified under part 60.

Because no change is needed to allow part 142 training centers to provide the FIEQTP, the FAA included part 142 training centers in this proposed provision. Additionally, inclusion of part 142 training centers in this provision provides greater regulatory flexibility. The FAA notes, however, that although instructors at part 142 training centers may hold part 61 flight instructor certificates, they are not necessary for training provided at a part 142 training center. Rather, instructors at training centers must meet the training requirements specific to part 142.

#### IV. Regulatory Notices and Analyses

Federal agencies consider impacts of regulatory actions under a variety of executive orders and other requirements. First, Executive Order 12866 and Executive Order 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies

to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. The current threshold after adjustment for inflation is \$165,000,000, using the most current (2021) Implicit Price Deflator for the Gross Domestic Product. This portion of the preamble summarizes the FAA's analysis of the economic impacts of this NPRM.

In conducting these analyses, the FAA has determined that this NPRM: will result in benefits that justify costs; is not an economically “significant regulatory action” as defined in section 3(f) of Executive Order 12866; will not have a significant economic impact on a substantial number of small entities; will not create unnecessary obstacles to the foreign commerce of the United States; and will not impose an unfunded mandate on State, local, or tribal governments, or on the private sector. These analyses are summarized below.

##### A. Regulatory Evaluation

The FAA proposes to amend part 61 of title 14 of the Code of Federal Regulations by (1) removing the expiration date on the flight instructor certificate; (2) allowing flight instructors whose recent experience has lapsed by no more than three calendar months to reinstate their flight instructor privileges by taking a FIRC; (3) identifying an FAA-sponsored pilot proficiency program (e.g., WINGS—FAA Pilot Proficiency Program) as an additional method for a flight instructor to meet recent experience requirements; (4) revising the qualifications for flight instructors seeking to train initial flight instructor applicants under 14 CFR 61.195(h)(2), and (5) codifying SFAR No. 100–2.

##### 1. Removing the Expiration Date on the Flight Instructor Certificate

Currently, a flight instructor certificate expires 24 calendar months from the month in which the FAA issued, renewed, or reinstated that certificate. The FAA is proposing to remove the expiration date from the flight instructor certificate, which would eliminate the need to renew that certificate prior to its expiration date by passing a practical test or by submitting a completed and signed application with the FAA and satisfactorily completing one of the currently enumerated renewal requirements. Under this proposal, these current renewal requirements would become

recent experience requirements. Consequently, the FAA would no longer have to create a new physical flight instructor certificate upon each applicant's recent experience cycle after that person receives their permanent certificate without an expiration date.

To estimate the cost savings associated with removing the expiration date from flight instructor certificates, the FAA begins with estimating the baseline number of certificates and associated costs avoided. The FAA estimates that from 2013 to 2021 the number of initial flight instructor certificates grew from 2,348 to 6,199 (i.e., the average annual growth rate from 2013 to 2021 was 12.90 percent). Using this 12.90 percent annual growth rate, the FAA forecasts the initial flight instructor certificates over the next five years. Similarly, the FAA estimates that from 2013 to 2021, the number of flight instructor certificate renewals grew from 41,467 to 54,189 (i.e., the average annual growth rate from 2013 to 2021 was 3.40 percent). Using this 3.40 percent annual growth rate, the FAA forecasts the flight instructor certificate renewals over the next five years.

The FAA determined the cost of issuing the physical flight instructor certificates by estimating the mean labor cost for the applicants that complete and submit FAA Form 8710 applications.<sup>71</sup> The FAA finds that the variety of people with various pay levels that work on issuing flight instructor certificates are classified using the May 2021 North American Industry Classification System under NAICS code<sup>72</sup> 481200, “Nonscheduled Air transportation.”<sup>73</sup> Therefore, the FAA starts with a base hourly wage of \$44.27 that is assumed to be representative of pilots and representative occupations. The FAA then applies the appropriate multipliers for overhead (this includes health benefits, vacation, sick time, etc.). More specifically, the FAA increases the base hourly rate by 42.25%, which is based on the percent of total compensation for transportation employees,<sup>74</sup> resulting in a fully

<sup>71</sup> This includes FAA Form 8710–1, Airman Certificate and/or Rating Application and Form FAA 8710–11, Airman Certificate and/or Rating application—Sport Pilot.

<sup>72</sup> The NAICS code is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

<sup>73</sup> U.S. Bureau of Labor Statistics, NAICS 481200—Nonscheduled Air Transportation. [https://www.bls.gov/oes/current/naics4\\_481200.htm](https://www.bls.gov/oes/current/naics4_481200.htm).

<sup>74</sup> Percent of total compensation = 29.7%. Source: Bureau of Labor Statistics News Release, Employer Costs for Employee Compensation—December

burdened wage rate of approximately \$62.97/hour. The time to produce each flight instructor certificate is estimated at 0.1 hours.<sup>75</sup>

Using the preceding information, the FAA estimates that during the first five years, the cost savings will be approximately \$2.3 million or \$1.9

million present value at a 7 percent discount rate, with annualized savings of \$452 thousand. The results are presented in Table 1.

TABLE 1—TOTAL INDUSTRY COST SAVINGS

Year	Initial flight instructor (forecast)	Flight instructor renewals (forecast)	Average wage per hour	Time to process each flight instructor (in hours)	Cost savings	Present value at 7%
1	7,902	57,938	\$62.97	0.1	\$414,594	\$387,471
2	8,921	59,909	62.97	0.1	433,423	378,568
3	10,072	61,946	62.97	0.1	453,497	370,189
4	11,372	64,053	62.97	0.1	474,951	362,338
5	12,839	66,232	62.97	0.1	497,910	355,003
1–5	51,106	310,078			2,274,376	1,853,569

**Notes:** (i) initial certificates forecast based on historic rate of 12.90 percent per year; (ii) Flight instructor renewal forecast based on historic rate of 3.40 percent per year; and (iii) estimates may not total due to rounding.

Using the initial flight instructor certificates forecast and the flight instructor certificate renewals forecast, the FAA estimates the costs savings to the Federal Government. The FAA determined the cost of issuing physical airman certificates by estimating the mean labor cost for clerks. The FAA estimates the salaries for the clerks

based on the 2022 General Schedule Locality Pay Tables using the Rest of the United States locality pay multiplier. The FAA uses 36.25 percent to calculate the overhead benefits multiplier. The total salary, including overhead, is \$84,508 (\$40.49 per hour). The time to produce each flight instructor certificate is estimated at 0.1 hours.<sup>76</sup> Using this

information, the FAA estimates that during the first five years, the FAA cost savings will be approximately \$1.5 million or \$1.2 million present value at a 7 percent discount rate, with annualized savings of \$291 thousand. The results are presented in Table 2.

TABLE 2—TOTAL FAA COST SAVINGS

Year	Initial flight instructor (forecast)	Flight instructor renewals (forecast)	Average wage per hour	Time to process each flight instructor (in hours)	Cost savings	Present value at 7%
1	7,902	57,938	\$40.49	0.1	\$266,586	\$249,146
2	8,921	59,909	40.49	0.1	278,693	243,421
3	10,072	61,946	40.49	0.1	291,601	238,033
4	11,372	64,053	40.49	0.1	305,396	232,985
5	12,839	66,232	40.49	0.1	320,158	228,269
1–5	51,106	310,078			1,462,434	1,191,854

**Notes:** (i) initial certificates forecast based on historic rate of 12.90 percent per year; (ii) Flight instructor renewal forecast based on historic rate of 3.40 percent per year; and (iii) estimates may not total due to rounding.

2. Flight Instructor Refresher Course

Allowing flight instructors whose recent experience has lapsed by no more than three calendar months to reinstate flight instructor privileges by taking a FIRC would result in cost savings for flight instructors. Under the current rule, flight instructor applicants typically incur the costs of taking a practical test. This expenditure generally includes the applicant’s time

for the test—which consists of the oral testing segment on the ground (about 2 hours) and the flight test segment (about 2–3 hours), the cost of a designated examiner to conduct the test,<sup>77</sup> and the aircraft operational or rental costs<sup>78</sup> incurred while taking the test. Therefore, a practical test to reinstate a flight instructor certificate can cost anywhere from about \$800 to thousands of dollars when a rental aircraft is used

for the practical test. Conversely, the cost of an online FIRC may be provided free of charge or as much as \$275 for a live classroom FIRC.<sup>79</sup>

To estimate the cost savings associated with taking a FIRC instead of a practical test, the FAA forecasts that on average 84 flight instructors would reinstate their flight instructor certificate within the first three month period from the expiration of their

2020. Employer Costs for Employee Compensation Archived News Releases: U.S. Bureau of Labor Statistics ([bls.gov](https://www.bls.gov)).

<sup>75</sup> Source: [https://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=201809-2120-009](https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201809-2120-009).

<sup>76</sup> Source: [https://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=201809-2120-009](https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201809-2120-009).

<sup>77</sup> According to the Airmen Certification and Training Branch of Flight Standards Service, this cost can range from about \$500 to \$1,000.

<sup>78</sup> One of the most popular aircraft, the Cessna 172 airplane, (four seat/single four-cylinder engine)

rents from about \$120/hour to \$220/hour wet (with fuel and oil), depending on its age and equipment. Helicopters generally cost more to rent than comparable airplane sizes, e.g., a Robinson R22 (popular two seat four cylinder piston single engine) typically rents wet for upwards of \$200/hour range. The R44 (popular four seat six cylinder single engine) rents wet for typically from \$450 on up. For example, at JJ Helicopter Inc., rentals are \$310/hour for a Robinson R22 helicopter and \$530/hour for Robinson R44 helicopter. Additional cost may include the time and cost for the aircraft and

flight instructor (the instructor’s fee, typically \$30-\$60 per hour), and for an insurance checkout to meet insurance company requirements to rent the aircraft.

<sup>79</sup> AceCFI (<https://www.acecfi.com/>) and American Flyers (<https://americanflyers.com/training/firc-for-life/>) offer free online FIRCs after a \$159.00 and \$99.00, respectively, onetime payment. Thereafter, that flight instructor may renew their flight instructor certificate free-of-charge with that online provider once every two years for life.

certificate by completing a FIRC.<sup>80</sup> The FAA determined the difference in cost between taking a practical test and taking a FIRC as \$2,668.<sup>81</sup> Therefore, the

FAA estimates that during the first five years, the cost savings will be approximately \$1.1 million or \$0.9 million present value at a 7 percent

discount rate, with annualized savings of \$223 thousand. The results are presented in Table 3.

TABLE 3—TOTAL FLIGHT INSTRUCTOR REFRESHER COURSE COST SAVINGS

Year	Flight instructors that will reinstate their flight instructor certificate within the first three month period from the expiration of their certificate (forecast)	Cost of practical test minus cost of FIRC	Cost savings	Present value at 7%
1 .....	84	\$2,668	\$223,181	\$208,580
2 .....	84	2,668	223,181	194,935
3 .....	84	2,668	223,181	182,182
4 .....	84	2,668	223,181	170,264
5 .....	84	2,668	223,181	159,125
1–5 .....	418	.....	1,115,904	915,086

Note: (i) estimates may not total due to rounding.

The FAA estimates that during the first five years, the combined cost savings (industry + FAA) will be

approximately \$4.9 million or \$4.0 million present value at a 7 percent discount rate, with annualized savings

of \$966 thousand. The results are presented in Table 4.

TABLE 4—TOTAL COST SAVINGS FOR THE INDUSTRY AND THE FAA

Impact	Cost savings	Present value at 7%	Annualized
Industry .....	\$3,390,280	\$2,768,655	\$675,249
FAA .....	1,462,434	1,191,854	290,682
Total .....	4,852,714	3,960,509	965,931

Note: (i) estimates may not total due to rounding.

3. FAA-Sponsored Pilot Proficiency Programs

This new section would add the FAA-sponsored pilot proficiency programs as a method to establish recent experience under § 61.197(a) and would codify the FAA’s current practice of permitting flight instructors to use the WINGS Program to satisfy § 61.197. Codifying FAA-sponsored pilot proficiency programs to allow flight instructors an additional method to renew their certificates is essentially an enabling provision for flight instructors, which was triggered by the need to provide a regulatory basis for a policy that has allowed flight instructors to renew their

certificate by means of the WINGS program.

4. Revising Flight Instructor Qualifications Under 14 CFR 61.195(h)(2)

Currently, prior to instructing initial flight instructor applicants, a flight instructor must have held their flight instructor certificate for at least 24 calendar months and have given a requisite number of hours of flight training. This NPRM proposes two additional options for a flight instructor to qualify to instruct initial flight instructor applicants. Under the proposal, flight instructors would have the option to qualify by training and

endorsing at least five applicants for a practical test for a pilot certificate or rating, with at least 80 percent of those applicants passing the test on their first attempt. As another option, flight instructors could complete an FAA-approved FIEQTP and give a requisite number of hours of flight training. These two proposed qualification options would allow flight instructors to be eligible to instruct initial flight instructor applicants sooner than 24 calendar months. This provision would provide additional flexibility to instructors and, thus, the FAA assumes it would provide a small cost savings.<sup>82</sup>

<sup>80</sup> Flight Instructors that reinstated their flight instructor certificate within the first three month period from the expiration of their certificate: 2019 = 92, 2020 = 79, 2021 = 80. Source: Federal Aviation Administration Airmen Certification Branch (AFB-720). Received data on January 06, 2023.

<sup>81</sup> Difference in cost between taking a practical test and taking a FIRC = \$2,805 – \$137.50 = \$2,667.50. Average cost of taking a flight instructor reinstatement practical test: \$2,805. Assumptions for the practical test:

- Airplane (CE-172), not Helicopter or other category aircraft.
- Airplane rental for training in preparation for the practical test = 6 hours × \$170 = \$1,020.
- Prep time for test with another CFI = 6 hours with a CFI = \$45 average = \$270 prep time.
- Airplane rental to and from test = 2 × \$170 = \$340.
- Airplane rental for the flight test (2 – 3 hours = 2.5 hour flight test) – Average cost wet @\$170 = \$425.

- Designated examiner fee to conduct the test average = \$750.

Note: This example reflects the most common reinstatement by practical test. However, each individual has different circumstances.

Average cost for taking a FIRC = \$137.50 (average of \$0 to \$275 = \$137.50).

<sup>82</sup> Section 61.195(h)(2)(iii) currently requires a flight instructor seeking to instruct an initial flight instructor applicant to have held their flight instructor certificate for at least 24 months.

### B. Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980, (Pub. L. 96–354, 94 Stat. 1164, 5 U.S.C. 601–612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121, 110 Stat. 857, Mar. 29, 1996) and the Small Business Jobs Act of 2010 (Pub. L. 111–240, 124 Stat. 2504 Sept. 27, 2010), requires Federal agencies to consider the effects of the regulatory action on small business and other small entities and to minimize any significant economic impact. The term “small entities” comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. Most of the parties affected by this proposed rule will be small businesses such as flight instructors, aeronautical universities, FAA designated pilot examiners, parts 61 and 141 flight schools, and part 142 training centers. There are over 121,000<sup>83</sup> flight instructors alone.

Therefore, this proposed rule will affect a substantial number of small entities. However, it does not impose costs net of cost savings. This proposed rule is expected to provide cost savings of over \$3 million present value at 7 percent during the first 5 years.

Therefore, as provided in section 605(b), the head of the FAA certifies that this proposed rule would not result in a significant economic impact on a substantial number of small entities, as it imposes no new costs net of cost savings.

### C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where

appropriate, that they be the basis for U.S. standards.

The FAA has assessed the potential effect of this proposed rule and determined that it would have only a domestic impact and, therefore, no effect on international trade.

### D. Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) governs the issuance of Federal regulations that require unfunded mandates. An unfunded mandate is a regulation that requires a state, local, or tribal government or the private sector to incur direct costs without the Federal Government having first provided the funds to pay those costs. The FAA determined that the proposed rule will not result in the expenditure of \$165,000,000 or more by State, local, or tribal governments, in the aggregate, or the private sector, in any one year.

### E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) (PRA) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public.<sup>84</sup> The FAA has determined that there will be a new requirement for information collection associated with this proposed rule for the FIEQTP. As required by the PRA, the FAA has submitted this proposed information collection request to OMB for its review. The new information collection would be entitled Flight Instructor Enhanced Qualification Training Program (FIEQTP): Preparation and Approval. The following discussion provides details on this information collection requirement.

**Summary:** The proposed rule would amend the qualification requirements for flight instructors seeking to provide flight training to initial flight instructor applicants by adding an option for flight instructors under part 61 to complete an approved FIEQTP that would develop the flight instructor’s instructional ability. Participation in this new training program would not be mandatory; instead, it would be one option to become qualified to instruct initial flight instructor applicants. Any part 141 pilot school or part 142 training center wishing to offer the new training

program would be required to submit the curriculum to the FAA for approval.

The proposed rule would benefit part 141 pilot schools and part 142 training centers by enabling them to use staff flight instructors<sup>85</sup> who successfully complete this course to provide training to initial flight instructor applicants enrolled in their own pilot flight programs.

**Use of:** The proposed information collected for the FIEQTP would ensure flight instructors seeking to provide flight training to initial flight instructor applicants are adequately trained in the knowledge and skills of the intricacies of providing flight training to initial flight instructor applicants. The requirement to submit the FIEQTP curriculum to the FAA for approval ensures that the FIEQTP meets the regulatory requirements of such program and provides greater oversight of the training programs to ensure consistency of both course and instructional quality among pilot schools and training centers.

**Burden Estimate:** At the time of writing, FAA records show 546 active part 141 pilot schools and 50 active part 142 training centers.<sup>86</sup> The FAA estimates that 25 percent of these pilot schools and training centers would take advantage of the provision in this proposed rule that would trigger an estimated 149 responses to this new information collection for § 61.195(h)(3). Therefore, in the first year, the FAA estimates that about 136.50 pilot schools and 12.50 training centers would submit a training program for approval for a total of about 149 respondents in the first year. Further, the FAA estimates that the development of each FIEQTP would take approximately 80 hours and that the task would be performed by the pilot school’s or training center’s chief flight instructor. The Bureau of Labor Statistics estimates that the mean annual salary for a chief flight instructor is \$92,040, from which the FAA estimates an average wage of \$44.25 per hour.<sup>87</sup> This wage was obtained using the North American Industry Classification System (NAICS) industry code 53–2010 designate for aircraft pilots and flight engineers. This wage

<sup>85</sup> Proposed § 61.195(h)(3)(vi) would prescribe specific qualifications for instructors in addition to the requirements provided by each respective part (*i.e.*, part 141 and part 142), as applicable.

<sup>86</sup> The FAA obtained a list of active part 141 pilot schools and a list of active part 142 training centers from the WebOPSS system on Mar. 9, 2022.

<sup>87</sup> The code was determined to be the appropriate code as the NAICS code for training and development specialists states “flight instructors are included with “Aircraft Pilots and Flight Engineers” (53–2010)”. Source: <https://www.bls.gov/oes/current/oes131151.htm>.

<sup>83</sup> [https://www.faa.gov/data\\_research/aviation\\_data\\_statistics/civil\\_airmen\\_statistics/media/2021-civil-airmen-stats.xlsx](https://www.faa.gov/data_research/aviation_data_statistics/civil_airmen_statistics/media/2021-civil-airmen-stats.xlsx).

<sup>84</sup> The FAA made changes to FAA Forms 8710–1, *Airman Certificate And/or Rating Application*, and 8710–11, *Airman Certificate and/or Rating Application—Sport Pilot*, that currently have collection approval detailed in section III.A.2 of this preamble. The FAA has determined that these changes are de minimis in nature and do not impose any additional burdens such that no revision to the currently approved information collection is needed.

estimate was derived by dividing \$92,040 by 2,080 hours (assuming a 40-hour work week for 52 weeks), which is \$44.25 per hour. Next, a fringe benefit multiplier 1.42 was included. This

results in an annual salary of \$130,553 and hourly wage of \$62.77.<sup>88</sup> This would result in a first-year burden of about 11,920 hours and about \$748,218 ((136.50 pilot schools +12.50 training

centers) × 80 hours × \$62.77) for affected pilot schools and training centers to prepare and submit new training programs.

TABLE 4—INDUSTRY SALARY INCLUDING OVERHEAD

Job category	Annual wage	Multiplier	Total	Hourly wage
Chief Flight Instructor .....	(1) \$92,040	(2) 1.42	\$130,553	(3) \$62.77

**Sources:**

- (1) NAICS Code (53–2010). <https://www.bls.gov/oes/current/oes131151.htm>.
- (2) Overhead benefit percent of total compensation = 29.5%. <https://www.bls.gov/bls/news-release/ecec.htm>.
- (3) Using 2,080 working hours in one year.

For subsequent years, the FAA assumes a growth rate of one percent for both pilot schools and training centers. The FAA estimates that 25 percent of those institutions would submit FIEQTP to the FAA for approval, resulting in approximately 1.49 new respondents and an additional burden of about 119 hours and \$7,482 in subsequent years. The FAA also estimates that each year at least 50 percent of the pilot schools and training centers that provide the FIEQTP curriculum would require at least one revision to address any updates or deficiencies identified by the FAA, pilot school, or training center. As a result, the FAA estimates the total

annual burden to pilot schools and training centers of submissions, including growth and revisions, at 4,806 hours and \$301,652.

The FAA reviewed the number of initial flight instructors certificated in the previous three years, which was reported as: 2021 (6,199), 2020 (6,237), and 2019 (5,945) equaling a total of 18,381 newly certificated flight instructors. Using the most recent year of these newly certificated flight instructors, the FAA estimates 6,199 student records would be generated in the first year. The FAA further assumes that 25 percent of the students would enroll in a FIEQTP regardless of other alternatives. The FAA, therefore,

estimates that 1,550 students<sup>89</sup> would enroll in a FIEQTP in the first year. The FAA further estimates that the student-population growth rate would be 0.6 percent.<sup>90</sup> In addition, the FAA estimates each record would require five minutes of processing time and that recordkeeping functions would be the responsibility of the chief flight instructor. This would result in an annual recordkeeping burden of 43 hours and \$2,724.

The annual industry burden and cost of this information requirement for plan submission and revision and student recordkeeping is about 4,849 hours and \$304,376.

TABLE 5—INDUSTRY FIEQTP DEVELOPMENT AND REVISION BURDEN AND COSTS (INFORMATION USED FOR ESTIMATES)

Category	Element	Estimate
Pilot Schools .....	Number of pilot schools .....	546
	Portion of pilot schools affected .....	25%
	Number of pilot schools affected .....	(546 × 0.25 =) 136.50
	Growth rate of pilot schools .....	1%
Training Centers .....	Number of training centers .....	50
	Portion of training centers affected .....	25%
	Number of training centers affected .....	(50 × 0.25 =) 12.50
FIEQTP .....	Growth rate of training centers .....	1%
	Time needed to develop and submit original .....	80 hours
	Time for revisions .....	10 hours
Wage Rate .....	Percent revisions per year .....	50% <sup>91</sup>
	Chief flight instructor .....	\$62.77 <sup>92</sup>

The FAA estimates the annual burden and cost to the Federal Government for the review and authorization of the FIEQTP would be 2,842 hours and \$231,504. This burden and cost was determined by estimating the time required for FAA personnel to review FIEQTP curriculums and authorize an applicant’s program through the issuance of an approval letter. The FAA

estimates FAA aviation safety inspectors (ASIs) would spend 40 hours on each review and 10 hours on each revision. Additionally, FAA clerks would spend 30 minutes on issuance of an approval letter. The FAA estimates the salaries for the ASIs and clerks based on the 2022 General Schedule Locality Pay Tables using the Rest of the United States locality pay multiplier. The FAA

uses 36.25 percent to calculate the overhead benefits multiplier. The total salary, including overhead, is \$172,206 (\$82.51 per hour) for ASIs and \$84,508 (\$40.49 per hour) for clerks. The analysis uses the same number of responses estimated for industry FIEQTP submission and revision to estimate the burden and cost to the FAA of reviews and approvals.

<sup>88</sup> Percent of total compensation = 29.5%. Source: Bureau of Labor Statistics News Release. Employer Costs for Employee Compensation—March 2022. Employer Costs for Employee Compensation Archived News Releases: U.S. Bureau of Labor Statistics ([bls.gov](https://www.bls.gov)).

<sup>89</sup> 6,199 × 25% = 1,550 students.

<sup>90</sup> Source: FAA Airman Certification Branch.

<sup>91</sup> Estimated as 50% of the total affected pilot schools and training centers per year adjusted for growth.

<sup>92</sup> Data obtained from NAICS code 53–2010 from BLS data website: [https://www.bls.gov/oes/current/naics4\\_611500.htm#25-0000](https://www.bls.gov/oes/current/naics4_611500.htm#25-0000). Accessed April 4, 2022. Hourly wage calculated by dividing the annual mean wage of \$92,040 by 2,080 hours.

TABLE 6—FAA SALARIES INCLUDING OVERHEAD

Job category	Aviation safety inspector	Clerk
Grade and Step .....	GS–14 Step 5	GS–9 Step 5
Annual Base Salary .....	(1) \$108,769	(1) \$53,377
Locality Multiplier .....	(2) 1.162	(2) 1.162
Salary Adjusted by Locality Pay .....	\$126,390	\$62,024
Overhead Benefit Multiplier .....	(3) 1.3625	(3) 1.3625
Salary including Overhead .....	\$172,206	\$84,508
Hourly Wage .....	(4) \$82.51	(4) \$40.49

**Sources:**

- (1) 2022 General Schedule Pay. <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2022/general-schedule/>.
- (2) FAA locality rate for the Rest of the United States.
- (3) [https://www.whitehouse.gov/wp-content/uploads/legacy\\_drupal\\_files/omb/memoranda/2008/m08-13.pdf](https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/memoranda/2008/m08-13.pdf).
- (4) Using 2,087 working hours in one year.

The combined (industry + FAA) annual burden and cost is 7,691 hours and \$536,236. The following provides additional detail of response, burden, and cost estimates to industry and the FAA (some estimates may not exactly total due to rounding).

TABLE 7—ANNUAL BURDEN AND COSTS FOR THE INDUSTRY AND THE FAA

Category	Total responses	Hours per response	Burden hours				Costs
			Reporting	Recordkeeping	Disclosure	Total	
<i>Industry:</i>							
61.195(h)(3).							
Development Cost—Pilot Schools .....	46.41	80	3,713			3,713	\$233,075
Development Cost—Training Centers .....	4.25	80	340			340	21,344
Cost—Revisions .....	75.25	10	752			752	47,233
Industry Recordkeeping Costs ...	522.80	0.083		43		43	2,724
Total Industry Costs for 61.195(h)(3) .....			4,806	43	0	4,849	304,376
<i>FAA:</i>							
61.195(h)(3).							
Review cost of FIEQTP curricu- lums .....	50.66	40	2,027			2,027	167,222
Revision cost of FIEQTP curricu- lums .....	75.25	10	752			752	62,089
Cost of issuing approval letter ...	125.91	0.5	63			63	2,549
Total FAA Costs for 61.195(h)(3) .....			2,842	0	0	2,842	231,861
Total Industry and FAA Costs for 61.195(h)(3) .....			7,648	43	0	7,691	\$536,236

Details may not add to row or column totals due to rounding.

Finally, proposed § 61.195(h)(3)(vii) would require part 141 pilot schools and part 142 training centers to issue a graduation certificate to each flight instructor who successfully completes the FIEQTP. While part 141 already requires pilot schools to issue a graduation certificate to each student who completes an approved course of training,<sup>93</sup> this will be a new requirement for part 142 training centers, and only required for training centers in the context of FIEQTPs. The FAA does not know how many part 141 pilot schools or how many part 142

training centers would choose to provide the FIEQTP course. Additionally, the FAA does not know how many flight instructors would seek to attend this course at a part 141 pilot school, which is already required to issue a graduation certificate; or how many flight instructors would seek to attend this course at a part 142 training center, which are not currently required to issue graduation certificates. Therefore, the FAA is unable to quantify the costs to provide a graduation certificate. The FAA requests comments regarding the number of newly certificated flight instructors for part 142 training centers and requests that all

comments be accompanied with clear documentation. The FAA may quantify these costs in the final rule.

*Public Comments:* The agency is soliciting comments to—

- Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency’s estimate of the burden;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of collecting information on those who are to

<sup>93</sup> See § 141.95.

respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may send comments on the information collection requirement to the address listed in the **ADDRESSES** section at the beginning of this preamble by June 22, 2023. Comments also should be submitted to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Office Building, Room 10202, 725 17th Street NW, Washington, DC 20053.

#### F. International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these proposed regulations.

#### G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5–6.6 for regulations and involves no extraordinary circumstances.

#### V. Executive Order Determinations

##### A. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government and, therefore, would not have federalism implications.

##### B. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Consistent with Executive Order 13175, Consultation and Coordination with Indian Tribal Governments,<sup>94</sup> and

FAA Order 1210.20, American Indian and Alaska Native Tribal Consultation Policy and Procedures,<sup>95</sup> the FAA ensures that Federally Recognized Tribes (Tribes) are given the opportunity to provide meaningful and timely input regarding proposed Federal actions that have the potential to affect uniquely or significantly their respective Tribes. At this point, the FAA has not identified any unique or significant effects, environmental or otherwise, on tribes resulting from this proposed rule.

##### C. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use. The agency has determined that it would not be a “significant energy action” under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

##### D. Executive Order 13609, International Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609 and has determined that this action would have no effect on international regulatory cooperation.

#### VI. How To Obtain Additional Information

##### A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one time if comments are filed electronically or

commenters should send only one copy of written comments if comments are filed in writing.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

##### B. Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to the person in the **FOR FURTHER INFORMATION CONTACT** section of this document. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

##### C. Electronic Access and Filing

A copy of this NPRM, all comments received, any final rule, and all background material may be viewed online at <https://www.regulations.gov> using the docket number listed above. A copy of this proposed rule will be placed in the docket. Electronic retrieval help and guidelines are available on the website. It is available 24 hours each day, 365 days each year. An electronic copy of this document may also be downloaded from the Office of the Federal Register’s website at <https://www.federalregister.gov> and the Government Publishing Office’s website at <https://www.govinfo.gov>. A copy may also be found at the FAA’s Regulations and Policies website at [https://www.faa.gov/regulations\\_policies](https://www.faa.gov/regulations_policies).

<sup>95</sup> FAA Order No. 1210.20 (Jan. 28, 2004), available at <http://www.faa.gov/documentLibrary/media/1210.pdf>.

<sup>94</sup> 65 FR 67249 (Nov. 6, 2000).



Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267-9677. Interested persons must identify the docket or notice number of this rulemaking.

D. Small Business Regulatory Enforcement Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document may contact its local FAA official or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. To find out more about SBREFA on the internet, visit [www.faa.gov/regulations\\_policies/rulmaking/sbre\\_act/](http://www.faa.gov/regulations_policies/rulmaking/sbre_act/).

List of Subjects

14 CFR Part 61

Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements, Teachers.

14 CFR Part 63

Aircraft, Airman, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 65

Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 141

Airmen, Educational facilities, Reporting and recordkeeping requirements, Schools.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations as follows:

PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS

■ 1. The authority citation for part 61 is revised to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 44701-44703, 44707, 44709-44711, 44729, 44903, 45102-45103, 45301-45302; Sec. 2307 Pub. L. 114-190, 130 Stat. 615 (49 U.S.C. 44703 note); Sec. 318 Pub. L. 115-254.

Special Federal Aviation Regulation No. 100-2 [Removed]

■ 2. Remove Special Federal Aviation Regulation No. 100-2 from part 61.

■ 3. Amend § 61.2 by revising paragraphs (b)(1) and (2) to read as follows:

§ 61.2 Exercise of Privilege.

\* \* \* \* \*

(b) \* \* \*

(1) Exercise privileges of an airman certificate, rating, endorsement, or authorization issued under this part unless that person meets the appropriate airman recent experience and medical requirements of this part, specific to the operation or activity.

(2) Exercise privileges of a foreign pilot license within the United States to conduct an operation described in § 61.3(b), unless that person meets the appropriate airman recent experience and medical requirements of the country that issued the license, specific to the operation.

■ 4. Amend § 61.19 by revising paragraphs (a)(2), (c)(1), (d), and (e) to read as follows:

§ 61.19 Duration of pilot and instructor certificates and privileges.

(a) \* \* \*

(2) Except for a certificate issued with an expiration date, a certificate issued under this part is valid unless it is surrendered, suspended, or revoked.

\* \* \* \* \*

(c) \* \* \*

(1) A pilot certificate (including a student pilot certificate issued after April 1, 2016) issued under this part is issued without an expiration date.

\* \* \* \* \*

(d) *Flight instructor certificate.* (1) A flight instructor certificate issued under this part on or after [EFFECTIVE DATE OF FINAL RULE] is issued without an expiration date.

(2) A flight instructor certificate issued before [EFFECTIVE DATE OF FINAL RULE] expires 24 calendar months from the month in which it was issued, renewed, or reinstated, as appropriate.

(e) Ground instructor certificate. A ground instructor certificate is issued without an expiration date.

\* \* \* \* \*

■ 5. Amend § 61.39 by:

■ a. Revising the introductory text of paragraph (a), the introductory text of paragraph (b), paragraph (b)(3), the introductory text of paragraph (c), and paragraph (c)(2);

■ b. Redesignating paragraphs (e) through (g) as paragraphs (f) through (h); and

■ c. Adding new paragraph (e).

The revisions and addition read as follows:

§ 61.39 Prerequisites for practical tests.

(a) Except as provided in paragraphs (b), (c), (e), and (f) of this section, to be eligible for a practical test for a certificate or rating issued under this part, an applicant must:

\* \* \* \* \*

(b) Except as provided in paragraph (e) of this section, an applicant for an airline transport pilot certificate with an airplane category multiengine class rating or an airline transport pilot certificate obtained concurrently with a multiengine airplane type rating may take the practical test with an expired knowledge test only if the applicant passed the knowledge test after July 31, 2014, and is employed:

\* \* \* \* \*

(3) By the U.S. Armed Forces as a flight crewmember in U.S. military air transport operations at the time of the practical test and has satisfactorily completed the pilot in command aircraft qualification training program that is appropriate to the pilot certificate and rating sought.

(c) Except as provided in paragraph (e) of this section, an applicant for an airline transport pilot certificate with a rating other than those ratings set forth in paragraph (b) of this section may take the practical test for that certificate or rating with an expired knowledge test report, provided that the applicant is employed:

\* \* \* \* \*

(2) By the U.S. Armed Forces as a flight crewmember in U.S. military air transport operations at the time of the practical test and has satisfactorily completed the pilot in command aircraft qualification training program that is appropriate to the pilot certificate and rating sought.

\* \* \* \* \*

(e) An applicant for an airman certificate or rating issued under part 61 may take a practical test with an expired knowledge test if the applicant meets the requirements specified in § 61.40.

\* \* \* \* \*

■ 6. Add § 61.40 to read as follows:

§ 61.40 Relief for U.S. military and civilian personnel who are assigned outside the United States in support of U.S. Armed Forces operations.

(a) *Relief.* A person who satisfies the requirements of paragraph (b) of this section may use the following documents to demonstrate eligibility to renew a flight instructor certificate, establish recent flight instructor experience, take a practical test, or renew an inspection authorization, as appropriate:

(1) For flight instructor certificates issued before [THE EFFECTIVE DATE OF FINAL RULE], an expired flight instructor certificate to show eligibility for renewal of a flight instructor certificate under § 61.197;

(2) Except as provided in paragraph (a)(3) of this section, for flight instructor certificates issued after [THE EFFECTIVE DATE OF FINAL RULE], a record demonstrating the last recent experience event accomplished under § 61.197 to show eligibility to reestablish recent experience under § 61.197;

(3) For persons who were issued a flight instructor certificate after [THE EFFECTIVE DATE OF FINAL RULE] and who served in a U.S. military or civilian capacity outside the United States in support of a U.S. Armed Forces operation for some period of time during the 24 calendar months following the issuance of the person's flight instructor certificate, a flight instructor certificate demonstrating the date of issuance to show eligibility to establish recent experience under § 61.197;

(4) An expired written test report to show eligibility under this part to take a practical test;

(5) An expired written test report to show eligibility to take a practical test required under part 63 of this chapter; and

(6) An expired written test report to show eligibility to take a practical test required under part 65 of this chapter or an expired inspection authorization to show eligibility for renewal under § 65.93 of this chapter.

(b) *Eligibility.* A person is eligible for the relief specified in paragraph (a) of this section if that person meets the following requirements:

(1) The person must have served in a U.S. military or civilian capacity outside the United States in support of a U.S. Armed Forces operation during some period of time beginning on or after September 11, 2001;

(2) One of the following occurred sometime between September 11, 2001, and 6 calendar months after returning to the United States—

(i) The person's flight instructor certificate issued before [THE EFFECTIVE DATE OF FINAL RULE], airman written test report, or inspection authorization expired; or

(ii) For flight instructor certificates issued after [THE EFFECTIVE DATE OF FINAL RULE], the person has not met the flight instructor recent experience requirements within the preceding 24 calendar months in accordance with § 61.197; and

(3) The person complies with § 61.197 or § 65.93 of this chapter, as appropriate, or completes the appropriate practical test within 6 calendar months after returning to the United States.

(c) *Required documents.* To exercise the relief specified in paragraph (a) of this section, a person must complete and sign an application appropriate to the relief sought and submit the application to the appropriate Flight Standards office. The person must include with the application one of the following documents, which must show the date of assignment outside the United States and the date of return to the United States:

(1) An official U.S. Government notification of personnel action, or equivalent document, showing the person was a civilian on official duty for the U.S. Government outside the United States and was assigned to a U.S. Armed Forces operation some time on or after September 11, 2001;

(2) Military orders validating the person was assigned to duty outside the United States and was assigned to a U.S. Armed Forces operation some time on or after September 11, 2001; or

(3) A letter from the person's military commander or civilian supervisor providing the dates during which the person served outside the United States and was assigned to a U.S. Armed Forces operation some time on or after September 11, 2001.

■ 7. Amend § 61.56 by revising paragraphs (d)(2), (e), and (f) to read as follows:

**§ 61.56 Flight review.**

\* \* \* \* \*

(d) \* \* \*

(2) A practical test conducted by an examiner for one of the following:

(i) The issuance of a flight instructor certificate;

(ii) An additional rating on a flight instructor certificate;

(iii) To meet the recent experience requirements for a flight instructor certificate in accordance with § 61.197(b)(1); or

(iv) The reinstatement of flight instructor privileges in accordance with § 61.199(b)(2).

(e) A person who has, within the period specified in paragraph (c) of this section, satisfactorily accomplished one or more phases of an FAA-sponsored pilot proficiency program need not accomplish the flight review required by this section.

(f) A person who holds a flight instructor certificate need not accomplish the one hour of ground training specified in paragraph (a) of

this section if that person has, within the period specified in paragraph (c) of this section, met one of the following requirements—

(1) Satisfactorily completed the recent experience requirements for a flight instructor certificate under § 61.197; or

(2) Reinstated the person's flight instructor privileges by satisfactorily completing an approved flight instructor refresher course in accordance with § 61.199(a)(1).

\* \* \* \* \*

■ 8. Amend § 61.195 by revising paragraph (h) to read as follows:

**§ 61.195 Flight instructor limitations and qualifications.**

\* \* \* \* \*

(h) *Qualifications to provide ground or flight training to initial flight instructor applicants—*(1) *Ground training.* The ground training provided to an initial applicant for a flight instructor certificate must be given by an authorized instructor who—

(i) Holds a ground or flight instructor certificate with the appropriate rating, has held that certificate for at least 24 calendar months, and has given at least 40 hours of ground training; or

(ii) Holds a ground or flight instructor certificate with the appropriate rating and has given at least 100 hours of ground training in an FAA-approved course.

(2) *Flight training.* A flight instructor who provides flight training to an initial applicant for a flight instructor certificate must meet the eligibility requirements prescribed in § 61.183; hold the appropriate flight instructor certificate and rating; meet the requirements of the part under which the flight training is provided; and meet one of the following requirements—

(i) Have held a flight instructor certificate for at least 24 calendar months; and

(A) For training in preparation for an airplane, rotorcraft, or powered-lift rating, have given at least 200 hours of flight training as a flight instructor; or

(B) For training in preparation for a glider rating, have given at least 80 hours of flight training as a flight instructor;

(ii) Have trained and endorsed, during the preceding 24 calendar months, at least five applicants for a practical test for a pilot certificate or rating, and at least 80 percent of all applicants endorsed in that period passed that test on their first attempt; or

(iii) After completing the flight training requirements in paragraphs (h)(2)(i)(A) or (B) of this section, as appropriate, have graduated from an FAA-approved flight instructor

enhanced qualification training program that satisfies the requirements specified in paragraph (h)(3) of this section.

(3) *Flight instructor enhanced qualification training program.* A flight instructor enhanced qualification training program must be approved and conducted under part 141 or 142 of this chapter and meet the following requirements—

(i) The ground training must include at least 25 hours of instruction that includes the following subjects:

(A) Flight instructor responsibilities, functions, lesson planning, and risk management, including how to instruct an initial flight instructor applicant on these subjects.

(B) Teaching methods, procedures, and techniques applicable to instructing an initial flight instructor applicant.

(C) Methods of proper evaluation of an initial flight instructor applicant to detect improper and insufficient transfer of instructional knowledge, training, and performance of the initial flight instructor applicant.

(D) Corrective action in the case of unsatisfactory training progress.

(ii) The flight training must include at least 10 hours of training that includes the following areas:

(A) Scenario-based training to develop the flight instructor's ability to instruct an initial flight instructor applicant how to satisfactorily perform the procedures and maneuvers while giving effective flight training.

(B) Instructional knowledge and proficiency to teach an initial flight instructor applicant in abnormal and emergency procedures, which must include stall awareness, spin entry, spins, and spin recovery procedures, if applicable to the category and class of aircraft used in the flight instructor enhanced qualification training program.

(C) Risk management and potential results of improper, untimely, or non-execution of safety measures critical to flight training.

(D) Methods of proper evaluation of an initial flight instructor applicant to detect improper and insufficient transfer of instructional knowledge, training, and performance of the initial flight instructor applicant.

(E) Corrective action in the case of unsatisfactory training progress.

(F) Methods to detect personal characteristics of an initial flight instructor applicant that could adversely affect safety.

(iii) Each flight instructor enrolled in the flight instructor enhanced qualification training program must satisfactorily complete an end-of-course written test specific to the ground

training subjects in paragraph (h)(3)(i) of this section and an end-of-course instructional proficiency flight test specific to the flight training areas in paragraph (h)(3)(ii) of this section.

(iv) A full flight simulator or flight training device may be used to meet the flight training requirements of paragraph (h)(3)(ii) of this section. The FFS or FTD must be—

(A) Qualified and maintained in accordance with part 60 of this chapter or a previously qualified device as permitted in accordance with § 60.17 of this chapter;

(B) Approved by the Administrator pursuant to § 61.4(a); and

(C) Used in accordance with the part under which the FAA-approved course is conducted.

(v) A maximum of 5 hours of training received in an advanced aviation training device may be used to meet the flight training requirements of paragraph (h)(3)(ii) of this section for programs conducted under part 141 of this chapter. The advanced aviation training device must be—

(A) Approved by the Administrator pursuant to § 61.4(c); and

(B) Used in accordance with part 141 of this chapter.

(vi) No certificate holder may use a person nor may any person serve as an instructor of the flight instructor enhanced qualification training program unless the instructor holds a flight instructor certificate or ground instructor certificate and meets one of the following qualifications:

(A) Serves as a chief instructor or assistant chief instructor in a part 141 pilot school;

(B) Serves as a training center program manager or assistant training center program manager of a part 142 training center; or

(C) Meets the qualifications of an assistant chief instructor, pursuant to § 141.36(d).

(vii) A part 141 pilot school or part 142 training center must issue a graduation certificate to each flight instructor who successfully completes the flight instructor enhanced qualification training program.

\* \* \* \* \*

■ 9. Revise § 61.197 to read as follows:

**§ 61.197 Recent experience requirements for flight instructor certification.**

(a) A person may exercise the privileges of the person's flight instructor certificate only if, within the preceding 24 calendar months, that person has satisfied one of the recent experience requirements specified in paragraph (b) of this section. The 24 calendar month period during which

the flight instructor must establish recent experience shall start from one of the following—

(1) The month the FAA issued the flight instructor certificate;

(2) The month the recent experience requirements of paragraph (b) of this section are accomplished; or

(3) The last month of the flight instructor's current recent experience period provided the recent experience requirements of paragraph (b) of this section are accomplished within the 3 calendar months preceding the last month of the certificate holder's current recent experience period.

(b) A person who holds a flight instructor certificate may establish recent experience by satisfying one of the following requirements—

(1) Passing a practical test for—

(i) One of the ratings listed on the flight instructor certificate; or

(ii) An additional flight instructor rating; or

(2) Satisfactorily completing one of the following recent experience requirements, and submitting documentation of such in a form and manner acceptable to the Administrator—

(i) During the preceding 24 calendar months, the flight instructor has endorsed at least 5 applicants for a practical test for a certificate or rating and at least 80 percent of those applicants passed that test on the first attempt.

(ii) Within the preceding 24 calendar months, the flight instructor has served as a company check pilot, chief flight instructor, company check airman, or flight instructor in a part 121 or part 135 operation, or in a position involving the regular evaluation of pilots.

(iii) Within the preceding 3 calendar months, the person has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or a combination of both.

(iv) Within the preceding 24 calendar months from the month of application, the flight instructor passed an official U.S. Armed Forces military instructor pilot or pilot examiner proficiency check in an aircraft for which the military instructor already holds a rating or in an aircraft for an additional rating.

(v) Within the preceding 24 calendar months from the month of application, the flight instructor has served as a flight instructor in an FAA-sponsored pilot proficiency program, provided the flight instructor meets the following requirements—

(A) Holds a flight instructor certificate and meets the appropriate flight

instructor recent experience requirements of this part;

(B) Has satisfactorily completed at least one phase of an FAA-sponsored pilot proficiency program in the preceding 12 calendar months; and

(C) Has given at least 15 hours of flight training under the FAA-sponsored pilot proficiency program to at least 5 pilots and has made appropriate endorsements in the logbooks of those pilots.

(c) Except as provided in paragraph (f) of this section, a person who fails to establish recent experience in accordance with paragraph (b) of this section during the 24 calendar month period specified in paragraph (a) of this section may not exercise flight instructor privileges until those privileges are reinstated in accordance with § 61.199.

(d) The practical test required by paragraph (b)(1) of this section may be accomplished in a full flight simulator or flight training device if the test is accomplished pursuant to an approved course conducted by a training center certificated under part 142 of this chapter.

(e) A person who holds an unexpired flight instructor certificate issued before [THE EFFECTIVE DATE OF FINAL RULE] may renew that certificate by establishing recent experience in accordance with paragraph (b) of this section prior to the month of expiration on that person's flight instructor certificate. Except as provided in § 61.40, if that person fails to establish recent experience prior to the expiration of that person's flight instructor certificate, that person may not exercise flight instructor privileges until those privileges are reinstated in accordance with § 61.199.

(f) A person who qualifies for the relief prescribed in § 61.40 may establish recent experience in accordance with paragraph (b) of this section, provided the requirements of § 61.40 are met.

■ 10. Amend § 61.199 by revising the section heading and paragraph (a), and removing paragraphs (c) and (d).

**§ 61.199 Reinstatement of flight instructor privileges.**

(a) *Flight instructor privileges.* The holder of a flight instructor certificate who has not complied with the flight instructor recent experience requirements of § 61.197 may reinstate the person's flight instructor privileges by filing a completed and signed application with the FAA and satisfactorily completing one of the following reinstatement requirements:

(1) If 3 calendar months or less have passed since the last month of the flight instructor's recent experience period, the flight instructor may successfully complete an approved flight instructor refresher course consisting of ground training or flight training, or a combination of both, or satisfy one of the requirements specified in paragraph (a)(2) of this section.

(2) If more than 3 calendar months have passed since the last month of the flight instructor's recent experience period, the flight instructor must satisfactorily complete one of the following:

(i) A flight instructor certification practical test, as prescribed by § 61.183(h), for one of the ratings held on the flight instructor certificate; or

(ii) A flight instructor certification practical test for an additional rating.

(3) For military instructor pilots and pilot examiners, provide a record showing that, within the preceding 6 calendar months from the date of application for reinstatement, the person—

(i) Passed a U.S. Armed Forces instructor pilot or pilot examiner proficiency check; or

(ii) Completed a U.S. Armed Forces instructor pilot or pilot examiner training course and received an additional aircraft qualification as a military instructor pilot or pilot examiner that is appropriate to the flight instructor rating sought.

\* \* \* \* \*

■ 11. Revise § 61.215 by adding paragraph (e) to read as follows:

**§ 61.215 Ground instructor privileges.**

\* \* \* \* \*

(e) Ground training provided to an initial applicant for a flight instructor certificate may only be provided by an authorized instructor in accordance with § 61.195(h)(1).

■ 12. Revise § 61.425 to read as follows:

**§ 61.425 How do I establish recent experience for my flight instructor certificate with a sport pilot rating?**

(a) If you hold a flight instructor certificate with a sport pilot rating issued after [THE EFFECTIVE DATE OF FINAL RULE], you must establish recent experience in accordance with § 61.197.

(b) If you hold an unexpired flight instructor certificate with a sport pilot rating issued before [THE EFFECTIVE DATE OF FINAL RULE], you must renew your certificate by establishing recent experience in accordance with § 61.197 prior to the month of expiration on your flight instructor certificate. If you fail to establish recent experience prior to the expiration of your flight

instructor certificate, you may not exercise flight instructor privileges until you reinstate those privileges in accordance with § 61.427.

■ 13. Revise § 61.427 to read as follows:

**§ 61.427 How do I reinstate my flight instructor privileges if I fail to establish recent experience for my flight instructor with a sport pilot rating certificate?**

If you fail to establish recent experience for your flight instructor certificate with a sport pilot rating, you must reinstate your flight instructor privileges by satisfactorily completing one of the following reinstatement requirements:

(a) If 3 calendar months or less have passed since the last month of your recent experience period, you must successfully complete an approved flight instructor refresher course consisting of ground training or flight training, or a combination of both, or satisfy the requirements specified in paragraph (b) of this section.

(b) If more than 3 calendar months have passed since the last month of the flight instructor's recent experience period, you must pass a practical test as prescribed in § 61.405(b) or § 61.183(h) for one of the ratings listed on your flight instructor certificate with a sport pilot rating. The FAA will reinstate any privilege authorized by that flight instructor certificate with a sport pilot rating.

**PART 63—CERTIFICATION: FLIGHT CREWMEMBERS OTHER THAN PILOTS**

■ 14. The authority citation for part 63 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

■ 15. Amend § 63.35 by revising paragraphs (c), (d)(1)(iii) and (d)(2), and adding paragraph (d)(3) to read as follows:

**§ 63.35 Knowledge requirements**

\* \* \* \* \*

(c) Before taking the written tests prescribed in paragraphs (a) and (b) of this section, an applicant for a flight engineer certificate must present satisfactory evidence of having completed one of the experience requirements of § 63.37. However, the applicant may take the written tests before acquiring the flight training required by § 63.37

(d) \* \* \*

(1) \* \* \*

(iii) Meets the recurrent training requirements of the applicable part or, for mechanics, meets the recency of

experience requirements of part 65 of this chapter;

(2) Within the period ending 24 calendar months after the month in which the applicant passed the written test, the applicant participated in a flight engineer or maintenance training program of a U.S. scheduled military air transportation service and is currently participating in that program; or

(3) An applicant is eligible to take a practical test for a flight engineer certificate or rating under this part with an expired written test report in accordance with § 61.40 of this chapter.

■ 16. Amend § 63.53 by revising paragraph (b), and adding paragraph (c) to read as follows:

§ 63.53 Knowledge Requirements

(b) A report of the test is mailed to the applicant. Except as provided in paragraph (c) of this section, a passing grade is evidence, for a period of 24 calendar months after the test, that the applicant has complied with this section.

(c) An applicant is eligible to take a practical test for a flight navigator certificate under this part with an expired written test report in accordance with § 61.40 of this chapter.

PART 65—CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS

■ 17. The authority citation for part 65 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g). 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

■ 18. Amend § 65.55 by revising paragraph (b), and adding paragraph (c) to read as follows:

§ 65.55 Knowledge requirements.

(b) Except as provided in paragraph (c) of this section, the applicant must present documentary evidence satisfactory to the Administrator of having passed an aircraft dispatcher knowledge test within the preceding 24 calendar months.

(c) An applicant is eligible to take a practical test for an aircraft dispatcher certificate under this part with an expired written test report in accordance with § 61.40 of this chapter.

■ 19. Amend § 65.71 by revising paragraphs (a)(4) and (b) to read as follows:

§ 65.71 Eligibility requirements: General.

(a) \* \* \*

(4) Comply with the sections of this subpart that apply to the rating the applicant seeks.

(b) A certificated mechanic who applies for an additional rating must meet the requirements of § 65.77 and, within a period of 24 calendar months, pass the tests prescribed by §§ 65.75 and 65.79 for the additional rating sought, except as provided in § 65.75(d).

■ 20. Amend § 65.75 by adding paragraph (d) to read as follows:

§ 65.75 Knowledge requirements.

(d) An applicant is eligible to take a practical test for a mechanic certificate or rating under this part with an expired written test report in accordance with § 61.40 of this chapter.

■ 21. Amend § 65.93 by revising the introductory text of paragraph (a), and adding paragraph (d) to read as follows:

§ 65.93 Inspection authorization: Renewal.

(a) Except as provided in paragraph (d) of this section, to be eligible for renewal of an inspection authorization for a 2-year period an applicant must present evidence during the month of March of each odd-numbered year, at the responsible Flight Standards office, that the applicant still meets the requirements of § 65.91(c)(1) through (4). In addition, during the time the applicant held the inspection authorization, the applicant must show completion of one of the activities in paragraphs (a)(1) through (5) of this section by March 31 of the first year of the 2-year inspection authorization period, and completion of one of the five activities during the second year of the 2-year period:

(d) A person who qualifies for the relief prescribed in § 61.40 of this chapter is eligible to renew an expired inspection authorization under this section, provided the requirements of § 61.40 of this chapter are met.

PART 141—PILOT SCHOOLS

■ 23. The authority citation for part 141 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g). 40113, 44701–44703, 44707, 44709, 44711, 45102–45103, 45301–45302.

■ 24. Amend § 141.11 by adding paragraph (b)(2)(ix) and paragraph (b)(4) to read as follows:

§ 141.11 Pilot school ratings.

(b) \* \* \* (2) \* \* \* (ix) Flight instructor enhanced qualification training program.

\* \* \* \* \*

(4) Combined Private Pilot Certification and Instrument Rating Course (Appendix M).

- 25. Amend appendix K to part 141 by: ■ a. Revising the paragraph heading of paragraph 4.; ■ b. Revising paragraphs 4.(a) through (c); and ■ c. Adding paragraph 14.

The revisions and addition read as follows:

Appendix K to Part 141—Special Preparation Courses

\* \* \* \* \*

4. Use of full flight simulators, flight training devices, or aviation training devices.

(a) The approved special preparation course may include training in a full flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets requirements of this paragraph, and the training is given by an authorized instructor. A flight instructor enhanced qualification training program may include training in an advanced aviation training device in accordance with paragraph 14 of this appendix and § 61.195(h)(3)(v) of this chapter.

(b) Except for the airline transport pilot certification program in paragraph 13 of this appendix and the flight instructor enhanced qualification training program in paragraph 14 of this appendix, training in a full flight simulator that meets the requirements of § 141.41(a), may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(c) Except for the airline transport pilot certification program in paragraph 13 of this appendix and the flight instructor enhanced qualification training program in paragraph 14 of this appendix, training in a flight training device that meets the requirements of § 141.41(a), may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

\* \* \* \* \*

14. Flight instructor enhanced qualification training program. An approved flight instructor enhanced qualification training program must include the ground and flight training specified in § 61.195(h)(3) of this chapter. The FAA will not approve a course with fewer hours than those prescribed in § 61.195(h)(3) of this chapter.

Issued under authority provided by 49 U.S.C. 106(f), 44701(a)(5), and 44703(a) in Washington, DC.

**Wesley L. Mooty,**

*Acting Deputy Executive Director, Flight Standards Service.*

[FR Doc. 2023-10182 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

## FEDERAL TRADE COMMISSION

### 16 CFR Part 453

RIN 3084-AB55

### Public Workshop Examining Potential Amendments to the Funeral Rule

**AGENCY:** Federal Trade Commission.

**ACTION:** Public workshop; request for public comment.

**SUMMARY:** The Federal Trade Commission (“FTC” or “Commission”) will hold an in-person public workshop relating to its November 2, 2022, advance notice of proposed rulemaking (“2022 ANPR”) on the Trade Regulation Rule entitled the “Funeral Industry Practices Rule” (“Funeral Rule” or “Rule”). The workshop will explore issues relating to the Funeral Rule’s General Price List (“GPL”) requirements, including whether and how funeral providers should be required to provide price lists electronically or online, and other issues raised in the comments received in response to the 2022 ANPR.

**DATES:** The public workshop will be held on September 7, 2023, from 9:30 a.m. until 3:30 p.m. at the Constitution Center Conference Center, located at 400 7th Street SW, Washington, DC 20024. The workshop will also be available for viewing via live webcast. Requests to participate as a panelist must be received by June 19, 2023. Any written comments related to the issues discussed at the workshop must be received by October 10, 2023.

**ADDRESSES:** Interested parties may file a comment or a request to participate as a panelist online or on paper, by following the instructions in the Filing Comments and Requests to Participate as a Panelist part (Section IV) of the **SUPPLEMENTARY INFORMATION** section below. Write “Funeral Rule Workshop, Project No. P034410” on your comment or request to participate as a panelist. File your comment through <https://www.regulations.gov>. File your request to participate as a panelist by email to: [funeralrule@ftc.gov](mailto:funeralrule@ftc.gov). If you prefer to file your comment or request to participate on paper, write “Funeral Rule Workshop, Project No. P034410” on

your comment or request to participate, and on the envelope, and mail your comment or request to participate to the Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Avenue NW, Suite CC-5610 (Annex F), Washington, DC 20580.

**FOR FURTHER INFORMATION CONTACT:**

Melissa Dickey, Division of Marketing Practices, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Avenue NW, Washington, DC 20580, (202) 326-2662; and Samantha Denny, Midwest Region, Federal Trade Commission, 230 S. Dearborn, Suite 3030, Chicago, IL 60604, (312) 960-5623.

**SUPPLEMENTARY INFORMATION:**

**I. Introduction**

The Commission issued the Funeral Rule on September 24, 1982, and it became fully effective on April 30, 1984.<sup>1</sup> The Funeral Rule’s goals are to lower barriers to price competition in the funeral goods and services market and to facilitate informed consumer choice.<sup>2</sup> The Rule helps to achieve these goals by ensuring that: (1) consumers have access to sufficient information to permit them to make informed decisions; (2) consumers are not required to purchase goods and services they do not want and are not required to purchase by law; and (3) misrepresentations are not used to influence consumers’ decisions.<sup>3</sup>

Among other things, the Rule specifies it is an unfair or deceptive act or practice for a funeral provider to: (1) fail to furnish accurate price information to the purchaser disclosing the cost for each of the specific funeral goods or services used in connection with the disposition of deceased human remains;<sup>4</sup> (2) condition the furnishing of any funeral good or funeral service upon the purchase of any other funeral good or funeral service, or charge a fee as a condition for furnishing any goods or services (e.g., a “casket handling” fee

to consumers who provide their own casket);<sup>5</sup> or (3) embalm the deceased for a fee without authorization when embalming is not required by law.<sup>6</sup> The Rule also specifies it is an unfair or deceptive act or practice for a funeral provider to misrepresent certain legal or cemetery requirements, including those for embalming, caskets or burial containers, or any other funeral good or service.<sup>7</sup>

The Rule sets forth preventative requirements in the form of itemized price and information disclosures to ensure funeral providers do not engage in the unfair or deceptive acts or practices described in the foregoing paragraph. First, the Rule requires funeral providers to provide persons inquiring in-person about funeral goods or services with a GPL, which lists the goods and services they offer and their itemized prices, along with specific disclosures.<sup>8</sup> Second, the Rule requires funeral providers to show persons inquiring in-person a Casket Price List (“CPL”) identifying the caskets and alternative containers they offer, and an Outer Burial Container Price List (“OBCPL”) listing the vaults and grave liners they offer, along with specific disclosures.<sup>9</sup> Third, funeral providers are required to tell persons “who ask by telephone about the funeral provider’s offerings or prices . . . any accurate information” from the GPL, CPL, or OBCPL, “and any other readily available information that reasonably answers the question.”<sup>10</sup> Fourth, the Rule requires that, at the conclusion of the discussion of arrangements, funeral providers provide consumers with an itemized statement showing all the items selected by the customer and the itemized and total costs for those goods and services, along with other specific disclosures.<sup>11</sup>

On February 14, 2020, the Commission initiated a review of the Rule as part of its periodic review of its rules and guides, and solicited comments on, among other issues, the continued usefulness of the Rule.<sup>12</sup> In response to its request for comments, the Commission received 785 comments from a diverse group of respondents. Most commenters supported the retention of the Rule, with many

<sup>5</sup> 16 CFR 453.4(b)(1).

<sup>6</sup> 16 CFR 453.5(a).

<sup>7</sup> See 16 CFR 453.3–453.5 (listing additional unfair or deceptive acts or practices and preventative requirements).

<sup>8</sup> 16 CFR 453.2(b)(4).

<sup>9</sup> 16 CFR 453.2(b)(2)–(3).

<sup>10</sup> 16 CFR 453.2(b)(1).

<sup>11</sup> 16 CFR 453.2(b)(5).

<sup>12</sup> 85 FR 8490 (Feb. 14, 2020).

<sup>1</sup> Portions of the Rule became effective on January 1, 1984, and others became effective on April 30, 1984. See 48 FR 45537, 45538 (Oct. 6, 1983); 49 FR 564 (Jan. 5, 1984). Several funeral providers challenged the Rule, but it was upheld by the Fourth Circuit. *Harry and Bryant Co. v. FTC*, 726 F.2d 993 (4th Cir. 1984), cert. denied, 469 U.S. 820 (1984). The Rule was amended on July 19, 1994 (59 FR 1592 (Jan. 11, 1994)), and the Third Circuit upheld the amended Rule following a challenge. See *Pennsylvania Funeral Directors Ass’n, Inc. v. FTC*, 41 F.3d 81, 83 (3rd Cir. 1994). On March 14, 2008, the Commission completed a regulatory review and concluded the Rule was still needed and should be retained. See 73 FR 13740, 13742 (Mar. 14, 2008).

<sup>2</sup> See Original Funeral Rule Statement of Basis and Purpose, 47 FR 42260, 42260 (Sept. 24, 1982).

<sup>3</sup> See *id.*

<sup>4</sup> 16 CFR 453.2(a).

commenters proposing changes to its requirements.

On November 2, 2022, the Commission published an advance notice of proposed rulemaking (“ANPR”) in the *Federal Register*, announcing the Commission was considering several potential amendments to the Rule.<sup>13</sup> The Commission sought comment about seven topic areas: (1) whether and how funeral providers should be required to display or distribute their price information online or through electronic media; (2) whether funeral providers should be required to disclose third party crematory or other fees on the GPL; (3) whether the Rule’s requirements regarding reduced basic services fees should be amended; (4) whether the Rule should be amended to account for new forms of disposition of human remains; (5) whether the Rule’s embalming disclosure requirements should be amended; (6) whether the Rule should be changed to improve the readability of the price lists; and (7) whether changes should be made to the Rule to avoid negatively impacting underserved communities.<sup>14</sup> The comment period, as extended, closed on January 17, 2023.<sup>15</sup> In response to the ANPR, the Commission received over 663 comments, including comments from consumers, consumer advocates, funeral homes, and industry advocates.

## II. Issues for Discussion at the Workshop

As part of its rulemaking, the FTC is hosting an in-person public workshop to seek information about the potential amendments described in the 2022 ANPR. The workshop may cover such topics as:

(1) Online or electronic disclosures of price information;

(2) New forms of disposition of human remains; and

(3) The GPL, including the readability of the GPL, the Rule’s embalming disclosure requirement and other mandatory disclosures, whether third-party crematory fees and other third-party fees should be disclosed in the GPL, and whether funeral providers should be required or permitted to give out GPLs in languages other than English in any circumstances.

A more detailed agenda will be published at a later date, in advance of the scheduled workshop.

## III. Public Participation Information

### A. Workshop Attendance

The in-person workshop, which is free and open to the public, will be conducted in a roundtable format and will be held at the Constitution Center, 400 7th Street SW, Washington, DC 20024. For admittance to the Constitution Center, all attendees must show valid government-issued photo identification, such as a driver’s license. Please arrive early enough to allow adequate time for this process. The workshop will also be available for viewing via live webcast on the FTC’s website at <https://www.ftc.gov/news-events/events/2023/09/funeral-rule-workshop>.

A court reporter will be present to record the proceedings so a transcription can be made for the public record. This event may also be photographed, videotaped, webcast, or otherwise recorded. By participating in this event, you are agreeing that your image—and anything you say or submit—may be posted indefinitely at <https://www.ftc.gov> or on one of the Commission’s publicly available social media sites.

### B. Requests To Participate as a Panelist

The workshop will be organized into one or more panels, which will address the designated topics. Panelists will be selected by FTC staff. Other attendees will have an opportunity to comment and ask questions. The Commission will place a transcript of the proceeding on the public record. Requests to participate as a panelist must be received on or before June 19, 2023, as explained in Section IV below. Persons selected as panelists will be notified on or before August 16, 2023.

Disclosing funding sources promotes transparency, ensures objectivity, and maintains the public’s trust. If chosen, prospective panelists will be required to disclose the source of any support they received in connection with their participation in the workshop. This information will be included in the published panelist bios as part of the workshop record.

### C. Electronic and Paper Comments

The submission of comments is not required for participation in the workshop. If a person wishes to submit paper or electronic comments related to the issues discussed at the workshop, such comments should be filed as prescribed in Section IV of this

document and must be received on or before October 10, 2023. The Commission invites comments only on the specific issues discussed at the workshop.

## IV. Filing Comments and Requests To Participate as a Panelist

You can file a comment online or on paper. For the Commission to consider your comment, we must receive it on or before October 10, 2023. Write “Funeral Rule Workshop, Project No. P034410” on your comment. Your comment—including your name and your state—will be placed on the public record of this proceeding, including, to the extent practicable, on the publicly available website, <https://www.regulations.gov>.

Postal mail addressed to the Commission is subject to delay due to heightened security screening. As a result, we encourage you to submit your comments online, or to send them to the Commission by overnight service. To make sure the Commission considers your online comment, you must file it through the <https://www.regulations.gov> website by following the instructions on the web-based form provided.

Because your comment will be placed on the public record, you are solely responsible for making sure your comment does not include any sensitive or confidential information. In particular, your comment should not include any sensitive personal information, such as your or anyone else’s Social Security number; date of birth; driver’s license number or other state identification number, or foreign country equivalent; passport number, financial account number, or credit or debit card number. You are also solely responsible for making sure your comment does not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, your comment should not include any “trade secret or any commercial or financial information which . . . is privileged or confidential”—as provided by Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2)—including, in particular, competitively sensitive information, such as costs, sales statistics, inventories, formulas, patterns, devices, manufacturing processes, or customer names.

Comments containing material for which confidential treatment is requested must be filed in paper form, must be clearly labeled “Confidential,” and must comply with FTC Rule 4.9(c). In particular, the written request for confidential treatment that accompanies the comment must include the factual

<sup>13</sup> 87 FR 66096 (Nov. 2, 2022).

<sup>14</sup> See *id.* at 66111–14.

<sup>15</sup> See Press Release, FTC, FTC Extends Public Comment Period on Potential Funeral Rule Changes to January 17, 2023 (Dec. 21, 2022), <https://www.ftc.gov/news-events/news/press-releases/2022/12/ftc-extends-public-comment-period-potential-funeral-rule-changes-january-17-2023>.



and legal basis for the request and must identify the specific portions of the comments to be withheld from the public record.<sup>16</sup> Your comment will be kept confidential only if the General Counsel grants your request in accordance with the law and the public interest. Once your comment has been posted on the <https://www.regulations.gov> website, we cannot redact or remove your comment, unless you submit a confidentiality request that meets the requirements for such treatment under FTC Rule 4.9(c), and the General Counsel grants that request.

Requests to participate as a panelist at the workshop should be submitted electronically to [funeralrule@ftc.gov](mailto:funeralrule@ftc.gov), or, if mailed, should be submitted in the manner detailed below. For the Commission to consider your request to participate as a panelist, we must receive it by June 19, 2023. Parties are asked to include in their requests a brief statement setting forth their expertise in or knowledge of the issues on which the workshop will focus, as well as their contact information, including a telephone number and email address (if available), to enable FTC staff to notify them if they are selected.

If you file request to participate on paper, write "Funeral Rule Workshop, Project No. P034410" on your request to participate, and on the envelope, and mail your request to participate to the Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Avenue NW, Suite CC-5610 (Annex F), Washington, DC 20580. If possible, submit your request to participate to the Commission by overnight service.

Visit the Commission website at <https://www.ftc.gov> to read this document and the news release describing it. The FTC Act and other laws the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments it receives on or before October 10, 2023. The Commission will consider all timely requests to participate as a panelist in the workshop it receives by June 19, 2023. For information on the Commission's privacy policy, including routine uses permitted by the Privacy Act, see <https://www.ftc.gov/site-information/privacy-policy>.

By direction of the Commission.

**April J. Tabor,**  
Secretary.

[FR Doc. 2023-10815 Filed 5-22-23; 8:45 am]

**BILLING CODE 6750-01-P**

## DEPARTMENT OF JUSTICE

### 28 CFR Part 16

[CPCLO Order No. 002-2023]

#### Privacy Act of 1974; Implementation

**AGENCY:** Office of Privacy and Civil Liberties, United States Department of Justice.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** In the notice section of today's **Federal Register**, the Office of Privacy and Civil Liberties (hereinafter OPCL), a component within the United States Department of Justice (DOJ or Department), has published a notice of a new system of records, Data Protection Review Court Records System, JUSTICE/OPCL-001. In this notice of proposed rulemaking, the OPCL proposes to exempt this system of records from certain provisions of the Privacy Act to protect national security and law enforcement sensitive information, preserve judicial independence, and ensure the integrity of adjudicatory records in cases before the Data Protection Review Court ("DPRC"). For the reasons provided below, the Department proposes to amend its Privacy Act regulations by establishing an exemption for records in this system from certain provisions of the Privacy Act. Public comment is invited.

**DATES:** Comments must be received by June 22, 2023.

**ADDRESSES:** You may send comments by any of the following methods:

- *Email:* [privacy.compliance@usdoj.gov](mailto:privacy.compliance@usdoj.gov). To ensure proper handling, please reference the CPCLO Order No. in the subject line of the message.
- *Fax:* 202-307-0693.
- *Mail:* United States Department of Justice, Office of Privacy and Civil Liberties, ATTN: Privacy Analyst, 145 N St. NE, Washington, DC 20530. All comments sent via regular or express mail will be considered timely if postmarked on the day the comment period closes. To ensure proper handling, please reference the CPCLO Order No. in your correspondence.

• *Federal eRulemaking Portal:* <https://www.regulations.gov>. When submitting comments electronically, you must include the CPCLO Order No. in the subject box. Please note that the Department is requesting that electronic comments be submitted before midnight Eastern Time on the day the comment period closes because <https://www.regulations.gov> terminates the public's ability to submit comments at that time. Commenters in time zones

other than Eastern Time may want to consider this so that their electronic comments are received.

*Posting of Public Comments:* Please note that all comments received are considered part of the public record and made available for public inspection online at <https://www.regulations.gov> and in the Department's public docket. Such information includes personally identifying information (such as your name, address, etc.) voluntarily submitted by the commenter. If you want to submit personal identifying information (such as your name, address, etc.) as part of your comment, but do not want it to be posted online or made available in the public docket, you must include the phrase "PERSONALLY IDENTIFIABLE INFORMATION" in the first paragraph of your comment. You must also place all personally identifiable information that you do not want posted online or made available in the public docket in the first paragraph of your comment and identify what information you want redacted.

If you want to submit confidential business information as part of your comment, but do not want it to be posted online or made available in the public docket, you must include the phrase "CONFIDENTIAL BUSINESS INFORMATION" in the first paragraph of your comment. You must also prominently identify confidential business information to be redacted within the comment. If a comment has so much confidential business information that it cannot be effectively redacted, all or part of that comment may not be posted online or made available in the public docket.

Personally identifiable information and confidential business information identified and located as set forth above will be redacted and the comment, in redacted form, may be posted online and placed in the Department's public docket file. Please note that the Freedom of Information Act applies to all comments received. If you wish to inspect the agency's public docket file in person by appointment, please see the **FOR FURTHER INFORMATION CONTACT** section.

**FOR FURTHER INFORMATION CONTACT:** Katherine Harman-Stokes, Director (Acting), Office of Privacy and Civil Liberties, U.S. Department of Justice, Two Constitution Square, 145 N St. NE, Suite 8W-300, Washington, DC 20530; email: [privacy.compliance@usdoj.gov](mailto:privacy.compliance@usdoj.gov); telephone: (202) 514-0208; facsimile: (202) 307-0693.

**SUPPLEMENTARY INFORMATION:**

<sup>16</sup> See 16 CFR 4.9(c).



## I. Background

In accordance with the Privacy Act of 1974, OPCL is establishing a new system of records, Data Protection Review Court Records System, JUSTICE/OPCL–001, to maintain an accurate record of the Data Protection Review Court (DPRC) review of determinations made by the Civil Liberties Protection Officer of the Office of the Director of National Intelligence (ODNI CLPO) in response to complaints that allege certain violations of United States law in the conduct of United States signals intelligence activities.

On October 7, 2022, the President of the United States issued Executive Order (E.O.) 14086, Enhancing Safeguards for United States Signals Intelligence Activities, 87 FR 62283 (Oct. 14, 2022), which directed the Attorney General to establish the Data Protection Review Court (DPRC) as the second level of a two-level redress mechanism for alleged violations of law regarding signals intelligence activities. The Attorney General issued the regulation on October 7, 2022, now at 28 CFR 201, “Data Protection Review Court.” 87 FR 628303 (Oct. 14, 2022).

The first level of the new redress mechanism established by E.O. 14086 is the investigation, review, and determination by the ODNI CLPO of whether a covered violation occurred and, where necessary, the appropriate remediation in response to a complaint. The complainant or an element of the Intelligence Community may seek review by the DPRC of the ODNI CLPO’s determination.

Exercising the Attorney General’s authority under 28 U.S.C. 511 and 512 to provide his advice and opinion on questions of law and the authority delegated to the Attorney General under E.O. 14086, the DPRC will review whether the ODNI CLPO’s determination regarding the occurrence of a covered violation was legally correct and supported by substantial evidence and whether, in the event of a covered violation, the ODNI CLPO’s determination as to the appropriate remediation was consistent with E.O. 14086.

The regulations require the DPRC, and OPCL in support of the DPRC, to maintain all records relating to the DPRC’s review. For each application for review, OPCL shall maintain records of the information reviewed or created by the DPRC and the decision of the DPRC panel, which records shall be made available for consideration as non-binding precedent to future DPRC panels considering applications for review. 28 CFR 201.9(j), *see also* 28 CFR

201.5, *et seq.* Records of the DPRC’s review will include material created by the complainant, the public authority of a designated state, ODNI CLPO, elements of the Intelligence Community, DPRC Judges and Special Advocates, and Department of Justice personnel. Most of the information in this system consists of records that are classified, including the record of review received from the ODNI CLPO.

Pursuant to 28 CFR 201.9(i), certain classified information in the system indicating a violation of any authority subject to the oversight of the Foreign Intelligence Surveillance Court (“FISC”) will be shared with the Assistant Attorney General for National Security, who shall report violations to the FISC as required by law and in accordance with its rules of procedure. Similarly, information in the system will be provided to the Privacy and Civil Liberties Oversight Board (“PCLOB”) as necessary to conduct the annual review of the redress process described in Section 3(e) of E.O. 14086, consistent with the protection of intelligence sources and methods.

## II. Privacy Act Exemption

The Privacy Act allows Federal agencies to exempt eligible records in a system of records from certain provisions of the Act, including those that provide individuals with a right to request access to and amendment of records about the individual. If an agency intends to exempt a particular system of records, it must first issue a rulemaking pursuant to 5 U.S.C. 553(b)(1)–(3), (c), and (e). This proposed rule explains why an exemption is being claimed for this system of records and invites public comment, which the Department will consider before the issuance of a final rule implementing the exemptions.

The Department proposes to modify 28 CFR part 16 to add a new Privacy Act exemption for the new system of records, Data Protection Review Court Records System, JUSTICE/OPCL–001. The Department proposes this exemption because most of the records in this system will contain classified national security information, and as a result, notice, access, amendment, and disclosure (to include accounting for those records) to an individual, as well as certain record-keeping requirements, may cause damage to national security. The Privacy Act, pursuant to 5 U.S.C. 552a(k)(1), authorizes agencies to claim an exemption for systems of records that contain information properly classified pursuant to applicable law. The Department is proposing to claim an exemption from several provisions of

the Privacy Act, including various access, amendment, disclosure of accounting, and certain record-keeping and notice requirements pursuant to 5 U.S.C. 552a(k)(1), to prevent disclosure of any information properly classified pursuant to applicable law.

The Department also proposes to exempt this system of records because these records relate to criminal law enforcement activities, and certain requirements of the Privacy Act may interfere with the effective execution of these activities and undermine good order and discipline. The Privacy Act, pursuant to 5 U.S.C. 552a(j)(2), authorizes agencies with a principal law enforcement function pertaining to the enforcement of criminal laws (including activities of prosecutors, courts, etc.) to claim an exemption for systems of records that contain information identifying criminal offenders and alleged offenders, information compiled for the purpose of criminal investigation, or reports compiled for the purpose of criminal law enforcement proceedings. Additionally, pursuant to 5 U.S.C. 552a(k)(2), agencies may exempt a system of records from certain provisions of the Privacy Act if it contains investigatory material compiled for law enforcement purposes, other than materials within the scope of 5 U.S.C. 552a(j)(2). The Department is proposing to claim exemptions from several provisions of the Privacy Act, pursuant to 5 U.S.C. 552a(j)(2) and 552a(k)(2), to prevent the harms articulated in this rule from occurring. Records in this system of records are only exempt from the Privacy Act to the extent the purposes underlying the exemption pertain to the record. A notice of a new system of records, Data Protection Review Court Records System, JUSTICE/OPCL–001, is published in this issue of the **Federal Register**.

### Executive Orders 12866 and 13563—Regulatory Review

In accordance with 5 U.S.C. 552a(j) and 552a(k), this proposed action is subject to formal rulemaking procedures by giving interested persons an opportunity to participate in the rulemaking process “through submission of written data, views, or arguments,” pursuant to 5 U.S.C. 553. This proposed rulemaking proposes to exempt this system of records from certain provisions of the Privacy Act to protect national security and law enforcement sensitive information, preserve judicial independence and to ensure the integrity of adjudicatory records in cases before the Data Protection Review Court (“DPRC”). This

proposed rule is not a “significant” regulatory action under section 3(f) of E.O. 12866. Accordingly, the rule has not been reviewed by the Office of Management and Budget (OMB) under E.O. 12866. OPCL anticipates no costs or benefits accruing from this proposal.

#### Regulatory Flexibility Act

This proposed rule will impact records related to or reviewed in handling complaints in accordance with E.O. 14086 and DOJ regulation, 28 CFR 201, which are personal and generally do not apply to an individual’s entrepreneurial capacity, subject to limited exceptions. Even though this system will contain records that are not covered by the Privacy Act, the Chief Privacy and Civil Liberties Officer has nevertheless reviewed this regulation in accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)), and by approving it certifies that this regulation will not have a significant economic impact on a substantial number of small entities.

#### Small Business Regulatory Enforcement Fairness Act of 1996 (Subtitle E—Congressional Review Act)

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, 5 U.S.C. 801 *et seq.*, requires the Department to comply with small entity requests for information and advice about compliance with statutes and regulations within the Department’s jurisdiction. Any small entity that has a question regarding this document may contact the person listed in **FOR FURTHER INFORMATION CONTACT**. Persons can obtain further information regarding SBREFA on the Small Business Administration’s web page at <https://www.sba.gov/advocacy>. This proposed rule is not a major rule as defined by 5 U.S.C. 804 of the Congressional Review Act.

#### Executive Order 13132—Federalism

This proposed rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, it is determined that this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

#### Executive Order 12988—Civil Justice Reform

This proposed regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of Executive

Order 12988 to eliminate drafting errors and ambiguity, minimize litigation, provide a clear legal standard for affected conduct, and promote simplification and burden reduction.

#### Executive Order 13175—Consultation and Coordination With Indian Tribal Governments

This proposed rule will have no implications for Indian Tribal governments. More specifically, it does not have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. Therefore, the consultation requirements of Executive Order 13175 do not apply.

#### Unfunded Mandates Reform Act of 1995

This proposed rule will not result in the expenditure by State, local and tribal governments, in the aggregate, or by the private sector, of \$100,000,000, as adjusted for inflation, or more in any one year, and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995.

#### Paperwork Reduction Act

The Paperwork Reduction Act of 1995, 44 U.S.C. 3507(d), requires the Department to consider the impact of paperwork and other information collection burdens imposed on the public. There are no current or new information collection requirements associated with this proposed rule.

#### List of Subjects in 28 CFR Part 16

Administrative Practices and Procedures, Courts, Freedom of Information, and the Privacy Act.

Pursuant to the authority vested in the Attorney General by 5 U.S.C. 552a and delegated to me by Attorney General Order 2940–2008, the Department of Justice proposes to amend 28 CFR part 16 as follows:

#### PART 16—PRODUCTION OR DISCLOSURE OF MATERIAL OR INFORMATION

■ 1. The authority citation for part 16 continues to read as follows:

**Authority:** 5 U.S.C. 301, 552, 552a, 553; 28 U.S.C. 509, 510, 534; 31 U.S.C. 3717.

#### Subpart E—Exemption of Records Systems Under the Privacy Act

■ 2. Add § 16.139 to subpart E to read as follows:

#### § 16.139 Exemption of the Department of Justice Data Protection Review Court Records System, JUSTICE/OPCL–001.

(a) The Department of Justice Data Protection Review Court system of records JUSTICE/OPCL–001 is exempted from subsections 5 U.S.C. 552a(c)(3) and (4); (d)(1), (2), (3) and (4); (e)(1), (2) and (3); (e)(4)(G), (H) and (I); (e)(5) and (8); (f) and (g) of the Privacy Act. These exemptions apply only to the extent that information in this system is subject to exemption pursuant to 5 U.S.C. 552a(j) or (k). Where DOJ determines that compliance would not appear to interfere with or adversely affect the purpose of this system to address certain violations of United States law in the conduct of United States signals intelligence activities, and not interfere with national security or law enforcement operations, the applicable exemption may be waived by the DOJ in its sole discretion.

(b) Exemptions from the particular subsections are justified for the following reasons:

(1) From the subsection (c)(3) (accounting of disclosures) requirement that an accounting be made available to the named subject of a record, because this system is exempt from the access provisions of subsection (d). Where the individual is the subject of intelligence activities, to provide that individual with the disclosure accounting records would hinder authorized United States intelligence activities by informing that individual of the existence, nature, or scope of information that is properly classified pursuant to Executive Order 12958, as amended, and thereby cause damage to the national security. Revealing this information would also be contrary to Executive Order 14086 and could compromise ongoing, authorized law enforcement and intelligence efforts, particularly efforts to identify and/or mitigate national security threats.

(2) From subsection (c)(4) (notice of amendment to record recipients) notification requirements because this system is exempt from the access and amendment provisions of subsection (d) as well as the provision for making the accounting of disclosures available to an individual in subsection (c)(3). The DOJ takes seriously its obligation to maintain accurate records despite its assertion of this exemption, and to the extent it, in its sole discretion, agrees to permit amendment or correction of DOJ

records, it will share that information in appropriate cases.

(3) From subsection (d)(1), (2), (3) and (4) (record subject's right to access and amend records), (e)(4)(G) and (H) (publication of procedures for notifying subjects of the existence of records about them and how they may access records and contest contents), (e)(8) (notice of compelled disclosures), (f) (agency rules for notifying subjects to the existence of records about them, for accessing and amending records, and for assessing fees) and (g) (civil remedies) because these provisions concern individual access to and amendment of records containing national security, law enforcement, intelligence, counterintelligence and counterterrorism sensitive information that could alert the subject of an authorized law enforcement or intelligence activity about that particular activity and the interest of the DOJ and/or other law enforcement or intelligence agencies in the subject. Providing access could compromise information classified to protect national security; disclose information that would constitute an unwarranted invasion of another's personal privacy; reveal a sensitive investigative or intelligence technique; provide information that would allow a subject to avoid detection or apprehension; or constitute a potential danger to the health or safety of law enforcement personnel, confidential sources, witnesses, or other individuals. Nevertheless, DOJ has published notice concerning notification, access, and contest procedures because it may in certain circumstances determine it appropriate to provide subjects access to all or a portion of the records about them in a system of records, particularly if information pertaining to the individual has been declassified.

(4) From subsection (e)(1) (maintain only relevant and necessary records) because the DPRC in the course of receiving information pursuant to an application for review, including the ODNI CLPO's record of review, may receive records that are ultimately deemed irrelevant or unnecessary for the adjudication of the matter. Relevance and necessity are questions of judgment and timing; what appears relevant and necessary when collected ultimately may be deemed unnecessary. It is only after the information is assessed that its relevancy and necessity can be established. Even if the records received are ultimately determined to be irrelevant or unnecessary to the adjudication of an application for review, the OPCL generally must nevertheless retain such records to

maintain an accurate and complete record of the information reviewed by the DPRC.

(5) From subsection (e)(2) (collection directly from the individual) and (3) (provide Privacy Act Statement to subjects furnishing information). The DPRC will rely on records received from the ODNI CLPO, including records that the ODNI CLPO received from other elements of the Intelligence Community. The collection efforts of agencies that supply information ultimately received by the DPRC would be thwarted if the agencies were required to collect information with the subject's knowledge. Application of these provisions would put the subject of United States signals intelligence activities on notice of the signals intelligence activities and allow the subject an opportunity to engage in conduct intended to impede the investigative activity or avoid apprehension.

(6) From subsection (e)(4)(I) (identifying sources of records in the system of records), to the extent that this subsection is interpreted to require more detail regarding the record sources in this system than has been published in the **Federal Register**. Should the subsection be so interpreted, exemption from this provision is necessary to protect disclosure of properly classified national security and law enforcement sensitive information. Further, greater specificity of sources of properly classified records could compromise national security.

(7) From subsection (e)(5) (maintain timely, accurate, complete and up-to-date records) because many of the records in the system were derived from other domestic and foreign agency record systems over which DOJ exercises no control. It is often impossible to determine in advance if intelligence records contained in this system are accurate, relevant, timely and complete, but in the interest of maintaining a complete record of the information reviewed by the DPRC in each case, it is necessary to retain this information. The restrictions imposed by paragraphs (e)(5) would impede development of the record for review and limit the DPRC's ability to exercise independent judgment in the adjudication of applications for review.

(8) Continue in effect and assert all exemptions claimed under 5 U.S.C. 552a(j) or (k) by an originating agency from which DOJ obtains records where the purposes underlying the original exemption remain valid and necessary to protect the contents of the record.

Dated: May 10, 2023.

**Peter Winn,**

*Chief Privacy and Civil Liberties Officer (Acting), United States Department of Justice.*

[FR Doc. 2023-10525 Filed 5-22-23; 8:45 am]

**BILLING CODE 4410-PJ-P**

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## DEPARTMENT OF THE INTERIOR

### Office of Surface Mining Reclamation and Enforcement

#### 30 CFR Part 917

[SATS No. KY-264-FOR; Docket ID: OSM-2022-0008; S1D1S SS08011000 SX064A000 234S180110; S2D2S SS08011000 SX064A000 23XS501520]

#### Kentucky Regulatory Program

**AGENCY:** Office of Surface Mining Reclamation and Enforcement, Interior.

**ACTION:** Proposed rule; public comment period and opportunity for public hearing on proposed amendment.

**SUMMARY:** We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are announcing receipt of a proposed amendment to the Kentucky regulatory program (hereinafter, the Kentucky program), under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). Kentucky proposes to revise their regulations regarding the qualifications of members of the Reclamation Guaranty Fund Commission. This document gives the times and locations that the Kentucky program and this proposed amendment to that program are available for your inspection, the comment period during which you may submit written comments on the amendment, and the procedures that we will follow for the public hearing, if one is requested.

**DATES:** We will accept written comments on this amendment until 4 p.m., Eastern Daylight Time (EDT), June 22, 2023. If requested, we may hold a public hearing or meeting on the amendment on June 20, 2023. We will accept requests to speak at a hearing until 4 p.m., EDT on June 7, 2023.

**ADDRESSES:** You may submit comments, identified by SATS No. KY-264-FOR, by any of the following methods:

- *Mail/Hand Delivery:* Mr. Michael Castle, Field Office Director, Lexington Field Office, Office of Surface Mining Reclamation and Enforcement, 2675 Regency Road, Lexington, KY 40503.

- *Fax:* (859) 260-8410.

- *Federal eRulemaking Portal:* The amendment has been assigned Docket ID OSM-2022-0008. If you would like to submit comments, go to <https://www.regulations.gov>

[www.regulations.gov](http://www.regulations.gov). Follow the instructions for submitting comments.

**Instructions:** All submissions received must include the agency name and docket number for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Comment Procedures” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

**Docket:** For access to the docket to review copies of the Kentucky program, this amendment, a listing of any scheduled public hearings or meetings, and all written comments received in response to this document, you must go to the address listed below during normal business hours, Monday through Friday, excluding holidays. You may receive one free copy of the amendment by contacting OSMRE’s Lexington Field Office or the full text of the program amendment is available for you to read at <https://www.regulations.gov>.

Mr. Michael Castle, Field Office Director, Lexington Field Office, Office of Surface Mining Reclamation and Enforcement, 2675 Regency Road, Lexington, KY 40503, Telephone: (859) 260–3900, Email: [mcastle@osmre.gov](mailto:mcastle@osmre.gov).

In addition, you may review a copy of the amendment during regular business hours at the following location:

Mr. Gordon Slone, Commissioner, Department for Natural Resources, Kentucky Energy and Environment Cabinet, 3000 Sower Boulevard, Frankfort, KY 40601, Telephone: (502) 564–6940, Email: [GordonR.Slone@ky.gov](mailto:GordonR.Slone@ky.gov).

**FOR FURTHER INFORMATION CONTACT:** Mr. Michael Castle, Office of Surface Mining Reclamation and Enforcement, 2675 Regency Road, Lexington, KY 40503. Telephone: (859) 260–3900; email: [mcastle@osmre.gov](mailto:mcastle@osmre.gov).

#### **SUPPLEMENTARY INFORMATION:**

- I. Background on the Kentucky Program
- II. Description of the Proposed Amendment
- III. Public Comment Procedures
- IV. Statutory and Executive Order Reviews

#### **I. Background on the Kentucky Program**

Subject to OSMRE’s oversight, section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its approved State program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal

regulations. See 30 U.S.C. 1253(a)(1) and (7).

On the basis of these criteria, the Secretary of the Interior conditionally approved the Kentucky program effective May 18, 1982. You can find background information on the Kentucky program, including the Secretary’s findings, the disposition of comments, and conditions of approval of the Kentucky program in the May 18, 1982, **Federal Register** (47 FR 21434). You can also find later actions concerning the Kentucky program and program amendments at 30 CFR 917.11, 917.12, 917.13, 917.15, 917.16, and 917.17.

#### **II. Description of the Proposed Amendment**

By letter dated April 18, 2022, (Administrative Record No. KY–2008), Kentucky sent us an amendment to its program under SMCRA (30 U.S.C. 1201 *et seq.*). This submission proposes to revise the qualifications necessary for members to be appointed to the seven-person Reclamation Guaranty Fund Commission. Currently, the governor appoints three members to the commission that are representatives of the coal industry. Representatives are selected based on the amount of coal produced annually by the permittees they represent. Three tiers are created based on the amount of production with one member being selected from each tier. The proposed revisions would allow the governor to appoint a member from a lower tier when no permittee that participates in the fund meets the production level of an upper tier. This submission also removes, and proposes minor revisions to, requirements that are no longer relevant to the operation of the Commission. The full text of the program amendment is available for you to read at the locations listed above under **ADDRESSES** or at [www.regulations.gov](http://www.regulations.gov).

The proposed amendment would make the following changes to KRS 350.506:

A. Deleting the date “July 1, 2013” in section 1.

B. The word “industry” is replaced in 1(a) with “permittees that participate in the fund” and adds the language “tiered to represent the size of the operator measured in tons of coal sold”.

C. The numbering has been updated in section 1(a)(3).

D. Section 1(a)(3)(b), which read as follows “If no permittee which participates in the fund has mined and sold more the five million (5,000,000) tons of coal in the twelve (12) months preceding appointment, the member shall be selected from permittees which

meet the criteria for appointment set out in subparagraph 2. of this paragraph”, is being deleted.

E. The following language is being added section 1(a) “If no permittee that participates in the fund meets the qualifications stated in subparagraph 2 or in subparagraph 3, of this paragraph, then a qualified permittee shall be selected in a lower tier.”

F. Section 2(a) is being deleted, and subsequent paragraphs are renumbered accordingly.

G. The following language in section 5, “commission shall meet no less than once a month with the first meeting to be held on or before July 1, 2013, during the first year. Commencing with the second year, the” is being deleted and replaced with, “The commission shall meet no less than once every three (3) months. Four (4) members of the commission shall constitute a quorum at any meeting”.

#### **III. Public Comment Procedures**

Under the provisions of 30 CFR 732.17(h), we are seeking your comments on whether the amendment satisfies the applicable program approval criteria of 30 CFR 732.15. If approved, the amendment will become part of the State program.

#### *Electronic or Written Comments*

If you submit written or electronic comments on the proposed rule during the 30-day comment period, they should be specific, confined to issues pertinent to the proposed regulations, and explain the reason for any recommended change(s). We appreciate any and all comments, but those most useful and likely to influence decisions on the final regulations will be those that either involve personal experience or include citations to and analyses of SMCRA, its legislative history, its implementing regulations, case law, other pertinent State or Federal laws or regulations, technical literature, or other relevant publications.

We cannot ensure that comments received after the close of the comment period (see **DATES**) or sent to an address other than those listed (see **ADDRESSES**) will be included in the docket for this rulemaking and considered.

#### *Public Availability of Comments*

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying

information from public review, we cannot guarantee that we will be able to do so.

#### Public Hearing

If you wish to speak at the public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT** by 4 p.m., EDT on June 7, 2023. If you are disabled and need reasonable accommodations to attend a public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT**. We will arrange the location and time of the hearing with those persons requesting the hearing. If no one requests an opportunity to speak, we will not hold a hearing.

To assist the transcriber and ensure an accurate record, we request, if possible, that each person who speaks at the public hearing provide us with a written copy of his or her comments. The public hearing will continue on the specified date until everyone scheduled to speak has been given an opportunity to be heard. If you are in the audience and have not been scheduled to speak and wish to do so, you will be allowed to speak after those who have been scheduled. We will end the hearing after everyone scheduled to speak and others present in the audience who wish to speak, have been heard.

#### Public Meeting

If only one person requests an opportunity to speak, we may hold a public meeting rather than a public hearing. If you wish to meet with us to discuss the amendment, please request a meeting by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**. All such meetings are open to the public and, if possible, we will post notices of meetings at the locations listed under **ADDRESSES**. We will make a written summary of each meeting a part of the administrative record.

#### IV. Statutory and Executive Order Reviews

*Executive Order 12866—Regulatory Planning and Review and Executive Order 13563—Improving Regulation and Regulatory Review*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance dated October 12, 1993, the approval of State program amendments is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

#### Other Laws and Executive Orders Affecting Rulemaking

When a State submits a program amendment to OSMRE for review, our regulations at 30 CFR 732.17(h) require us to publish a notice in the **Federal Register** indicating receipt of the proposed amendment, its text or a summary of its terms, and an opportunity for public comment. We conclude our review of the proposed amendment after the close of the public comment period and determine whether the amendment should be approved, approved in part, or not approved. At that time, we will also make the determinations and certifications required by the various laws and Executive orders governing the rulemaking process and include them in the final rule.

#### List of Subjects in 30 CFR Part 917

Intergovernmental relations, Surface mining, Underground mining.

**Thomas D. Shope,**

*Regional Director, North Atlantic—Appalachian Region.*

[FR Doc. 2023–10822 Filed 5–22–23; 8:45 am]

**BILLING CODE 4310–05–P**

#### DEPARTMENT OF THE INTERIOR

##### Office of Surface Mining Reclamation and Enforcement

##### 30 CFR Part 926

[SATS No. MT–040–FOR; Docket ID: OSM–2023–0001; S1D1S SS08011000 SX064A000 231S180110; S2D2S SS08011000 SX064A000 23XS501520]

##### Montana Regulatory Program

**AGENCY:** Office of Surface Mining Reclamation and Enforcement, Interior.

**ACTION:** Proposed rule; public comment period and opportunity for public hearing on proposed amendment.

**SUMMARY:** We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are announcing receipt of a proposed amendment to the Montana regulatory program (hereinafter, the Montana program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). During the 2019 legislative session, Montana updated its Montana Strip and Underground Mine Reclamation Act and Montana Code Annotated. Accordingly, Montana submitted this proposed amendment to OSMRE on its own initiative. The proposed amendment requires a permit applicant's compliance information to

be updated and approved if a bankruptcy or reorganization results in a change of ownership for the applicant. Furthermore, the proposed amendment requires permit owners to provide financial assurance for employee pensions. Lastly, Montana proposes a typographical correction.

This document gives the times and locations that the Montana program and this proposed amendment to that program are available for your inspection, the comment period during which you may submit written comments on the amendment, and the procedures that we will follow for the public hearing, if one is requested.

**DATES:** We will accept written comments on this amendment until 4:00 p.m., Mountain Daylight Time (MDT), June 22, 2023. If requested, we may hold a public hearing or meeting on the amendment on June 20, 2023. We will accept requests to speak at a hearing until 4:00 p.m., MDT on June 7, 2023.

**ADDRESSES:** You may submit comments, identified by SATS No. MT–040–FOR, by any of the following methods:

- *Mail/Hand Delivery:* OSMRE, Attn: Jeffrey Fleischman, P.O. Box 11018, 100 East B Street, Room 4100, Casper, Wyoming 82602.

- *Fax:* (307) 261–6552.

- *Federal eRulemaking Portal:* The amendment has been assigned Docket ID: OSM–2023–0001. If you would like to submit comments, go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

*Instructions:* All submissions received must include the agency name and docket number for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Comment Procedures” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* For access to the docket to review copies of the Montana program, this amendment, a listing of any scheduled public hearings or meetings, and all written comments received in response to this document, you must go to the address listed below during normal business hours, Monday through Friday, excluding holidays. You may receive one free copy of the amendment by contacting OSMRE's Casper Field Office or the full text of the program amendment is available for you to read at [www.regulations.gov](http://www.regulations.gov).

*Attn:* Jeffrey Fleischman, Field Office Director, Office of Surface Mining Reclamation and Enforcement, 100 East B Street, Casper, Wyoming 8260 Telephone: (307) 261–6550, Email: [jfleischman@osmre.gov](mailto:jfleischman@osmre.gov).

In addition, you may review a copy of the amendment during regular business hours at the following location:

*Attn:* Dan Walsh, Mining Bureau Chief, Coal and Opencut Mining Bureau, Department of Environmental Quality, P.O. Box 200901, Helena, MT 59601–0901, Telephone: (406) 444–6791, Email: [dwalsh@mt.gov](mailto:dwalsh@mt.gov).

**FOR FURTHER INFORMATION CONTACT:**  
*Attn:* Jeffrey Fleischman, Field Office Director, Office of Surface Mining Reclamation and Enforcement, 100 East B Street, Casper, Wyoming 82602, Telephone: (307) 261–6550, Email: [jfleischman@osmre.gov](mailto:jfleischman@osmre.gov).

**SUPPLEMENTARY INFORMATION:**

- I. Background on the Montana Program
- II. Description of the Proposed Amendment
- III. Public Comment Procedures
- IV. Statutory and Executive Order Reviews

**I. Background on the Montana Program**

Subject to OSMRE's oversight, Section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its approved, State program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal regulations. See 30 U.S.C. 1253(a)(1) and (7).

On the basis of these criteria, the Secretary of the Interior approved the Montana program on October 24, 1980. You can find background information on the Montana program, including the Secretary's findings, the disposition of comments, and conditions of approval of the Montana program in the October 24, 1980, **Federal Register** (45 FR 70445). You can also find later actions concerning the Montana program and program amendments at 30 CFR 926.25.

**II. Description of the Proposed Amendment**

By letter dated February 16, 2023 (Administrative Record No. MT–040–01), Montana sent us an amendment to its program under SMCRA (30 U.S.C. 1201 *et seq.*). We found Montana's proposed amendment to be administratively complete on February 17, 2023. Montana submitted the proposed amendment to us, on its own volition, following changes to its statutes in 2019. During the 2019 legislative session, the Montana legislature passed Senate Bill 201 (SB 201). SB 201 updated the Montana Strip and Underground Mine Reclamation Act and § 82–4–222, Montana Code Annotated (MCA).

Montana first proposes to add language, at MCA 82–4–222(1)(g)(i), that would require an applicant for a permit to update their ownership or compliance history with the Montana Department of Environmental Quality (DEQ) if bankruptcy or reorganization results in changes to ownership parties specified in this section. The proposed language also requires that DEQ approve these changes.

Second, the amendment proposes to add language, at MCA 82–4–222(1)(g)(iii), that would require the DEQ to develop rules for permit owners to provide bonding or other financial assurance necessary to meet their financial obligations for employee pensions and reclamation obligations. Furthermore, operators are prohibited from passing associated costs onto purchasers who are dependent on the operator to generate electricity for customers. Lastly, Montana proposes a typographical correction at MCA 82–4–222(1)(q). The full text of the program and/or plan amendment is available for you to read at the locations listed above under **ADDRESSES** or at [www.regulations.gov](http://www.regulations.gov).

**III. Public Comment Procedures**

Under the provisions of 30 CFR 732.17(h), we are seeking your comments on whether the amendment satisfies the applicable program approval criteria of 30 CFR 732.15. If we approve the amendment, it will become part of the State program.

*Electronic or Written Comments*

If you submit written or electronic comments on the proposed rule during the 30-day comment period, they should be specific, confined to issues pertinent to the proposed regulations, and explain the reason for any recommended change(s). We appreciate any and all comments, but those most useful and likely to influence decisions on the final regulations will be those that either involve personal experience or include citations to and analyses of SMCRA, its legislative history, its implementing regulations, case law, other pertinent State or Federal laws or regulations, technical literature, or other relevant publications.

We cannot ensure that comments received after the close of the comment period (see **DATES**) or sent to an address other than those listed (see **ADDRESSES**) will be included in the docket for this rulemaking and considered.

*Public Availability of Comments*

Before including your address, phone number, email address, or other personal identifying information in your

comment, you should be aware that your entire comment including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

*Public Hearing*

If you wish to speak at the public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT** by 4:00 p.m., MDT on June 7, 2023. If you are disabled and need reasonable accommodations to attend a public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT**. We will arrange the location and time of the hearing with those persons requesting the hearing. If no one requests an opportunity to speak, we will not hold a hearing.

To assist the transcriber and ensure an accurate record, we request, if possible, that each person who speaks at the public hearing provide us with a written copy of his or her comments. The public hearing will continue on the specified date until everyone scheduled to speak has been given an opportunity to be heard. If you are in the audience and have not been scheduled to speak and wish to do so, you will be allowed to speak after those who have been scheduled. We will end the hearing after everyone scheduled to speak and others present in the audience who wish to speak, have been heard.

*Public Meeting*

If only one person requests an opportunity to speak, we may hold a public meeting rather than a public hearing. If you wish to meet with us to discuss the amendment, please request a meeting by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**. All such meetings are open to the public and, if possible, we will post notices of meetings at the locations listed under **ADDRESSES**. We will make a written summary of each meeting a part of the administrative record.

**IV. Statutory and Executive Order Reviews**

*Executive Order 12866—Regulatory Planning and Review and Executive Order 13563—Improving Regulation and Regulatory Review*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance, dated October 12, 1993, the approval of State

program amendments is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

#### *Other Laws and Executive Orders Affecting Rulemaking*

When a State submits a program amendment to OSMRE for review, our regulations at 30 CFR 732.17(h) require us to publish a notice in the **Federal Register** indicating receipt of the proposed amendment, its text or a summary of its terms, and an opportunity for public comment. We conclude our review of the proposed amendment after the close of the public comment period and determine whether the amendment should be approved, approved in part, or not approved. At that time, we will also make the determinations and certifications required by the various laws and executive orders governing the rulemaking process and include them in the final rule.

#### **List of Subjects in 30 CFR Part 926**

State regulatory program approval, State-federal cooperative agreement, Required program amendments.

**David A. Berry,**

*Regional Director, Unified Regions 5, 7–11.*

[FR Doc. 2023–10492 Filed 5–22–23; 8:45 am]

**BILLING CODE 4310–05–P**

## **DEPARTMENT OF THE INTERIOR**

### **Office of Surface Mining Reclamation and Enforcement**

#### **30 CFR Part 938**

[SATS No. PA–174–FOR; Docket ID: OSM–2021–0007; S1D1S SS08011000 SX064A000 223S180110; S2D2S SS08011000 SX064A000 22XS501520

#### **Pennsylvania Regulatory Program**

**AGENCY:** Office of Surface Mining Reclamation and Enforcement, Interior.

**ACTION:** Proposed rule; public comment period and opportunity for public hearing on proposed amendment.

**SUMMARY:** We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are announcing receipt of a proposed amendment to the Pennsylvania regulatory program (hereinafter, the Pennsylvania program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). Through this proposed amendment, Pennsylvania is requesting to adopt changes to its regulations related to the language defining

“minimal-impact post-mining discharge” and the addition of “minimal-impact post-mining discharge” as a subset in the definition of post-mining pollutional discharge. This document gives the times and locations that the Pennsylvania program and this proposed amendment to that program are available for your inspection, the comment period during which you may submit written comments on the amendment, and the procedures that we will follow for the public hearing, if one is requested.

**DATES:** We will accept written comments on this amendment until 4 p.m., Eastern Daylight Time (EDT), June 22, 2023. If requested, we may hold a public hearing or meeting on the amendment on June 20, 2023. We will accept requests to speak at a hearing until 4 p.m., EDT on June 7, 2023.

**ADDRESSES:** You may submit comments, identified by SATS No. PA–174–FOR, Docket ID: OSM–2021–0007, by any of the following methods:

- *Mail/Hand Delivery:* Ben Owens, Acting Field Office Director, Pittsburgh Field Office, 3 Parkway Center South, 2nd Floor, Pittsburgh, PA, 15220.

- *Fax:* (412) 937–2177

- *Federal eRulemaking Portal:* The amendment has been assigned Docket ID: OSM–2021–0007. If you would like to submit comments go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

*Instructions:* All submissions received must include the agency name and docket number for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Comment Procedures” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* To access the docket to review copies of the Pennsylvania regulatory program, this amendment, a listing of any scheduled public hearings or meetings, and all written comments received in response to this document, you must go to the address listed below during normal business hours, Monday through Friday, excluding holidays. You may receive one free copy of the amendment by contacting OSMRE’s Pittsburgh Field Office or the full text of the program amendment is available for you to read at <https://www.regulations.gov>.

Ben Owens, Acting Pittsburgh Field Office Director, Office of Surface Mining Reclamation and Enforcement, 3 Parkway Center Drive South, 2nd Floor, Pittsburgh, PA 15220, Telephone: (412) 937–2827, Email: [bowens@osmre.gov](mailto:bowens@osmre.gov)

In addition, you may review a copy of the amendment during regular business hours at the following location:

Pennsylvania Department of Environmental Protection, Bureau of Mining Programs, Rachel Carson State Office Building, P.O. Box 8461, Harrisburg, PA 17105–8461

**FOR FURTHER INFORMATION CONTACT:** Ben Owens, Office of Surface Mining Reclamation and Enforcement, 3 Parkway Center Drive South, 2nd Floor, Pittsburgh, PA 15220 Telephone: (412) 937–2827. Email: [bowens@osmre.gov](mailto:bowens@osmre.gov).

#### **SUPPLEMENTARY INFORMATION:**

I. Background on the Pennsylvania Program  
II. Description of the Proposed Amendment  
III. Public Comment Procedures  
IV. Statutory Orders and Executive Reviews

#### **I. Background on the Pennsylvania Program**

Section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its approved, State program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal regulations. See 30 U.S.C. 1253(a)(1) and (7). On the basis of these criteria, the Secretary of the Interior conditionally approved the Pennsylvania program on July 30, 1982. You can find background information on the Pennsylvania program, including the Secretary’s findings, the disposition of comments, and conditions of approval of the Pennsylvania program in the July 30, 1982, **Federal Register** (47 FR 33050). You can also find later actions concerning the Pennsylvania program and program amendments at 30 CFR 938.11, 938.12, 938.13, 938.15, and 938.16.

#### **II. Description of the Proposed Amendment**

By letter dated November 15, 2021, (Administrative Record No. PA 908.00), Pennsylvania sent us an amendment to its program under SMCRA (30 U.S.C. 1201 *et seq.*).

The proposed amendment includes changes to the Pennsylvania regulatory program regulations. The following chapters are revised: 52 P.S. 1396 section 4, Subsections (g.1)(g.2) and (g.3), definition relating to Minimal-Impact Post-mining discharge and definition of Post-mining pollution discharge. In a letter dated December 23, 2003, Pennsylvania requested that we remove the statutory provisions of 1396.4(g.1), (g.2), and (g.3) from the PA–



124 program amendment submission because its statutory definition of *minimal-impact post-mining discharge* at 52 P.S. section 1396.3 and the regulations for post-mining pollutional discharges [\*71256] were not included in the proposed program amendment (Administrative Record No. 853.23). We granted that request and did not take any action with respect to proposed sections 4(g.1), (g.2), and (g.3). We deferred our decision on the inclusion of minimal impact post-mining discharges in the definition of post-mining pollutional discharge until such time as the State submitted the definition of minimal-impact post-mining discharge to us as a proposed program amendment.

The full text of the program amendment is available for you to read at the locations listed above under **ADDRESSES** or at [www.regulations.gov](http://www.regulations.gov).

### III. Public Comment Procedures

Under the provisions of 30 CFR 732.17(h), we are seeking your comments on whether the amendment satisfies the applicable program approval criteria of 30 CFR 732.15. If we approve the amendment, it will become part of the State program.

#### *Electronic or Written Comments*

If you submit written or electronic comments on the proposed rule during the 30-day comment period, they should be specific, confined to issues pertinent to the proposed regulations, and explain the reason for any recommended change(s). We appreciate any and all comments, but those most useful and likely to influence decisions on the final regulations will be those that either involve personal experience or include citations to and analyses of SMCRA, its legislative history, its implementing regulations, case law, other pertinent State or Federal laws or regulations, technical literature, or other relevant publications.

We cannot ensure that comments received after the close of the comment period (see **DATES**) or sent to an address other than those listed (see **ADDRESSES**) will be included in the docket for this rulemaking and considered.

#### *Public Availability of Comments*

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cannot guarantee that we will be able to do so.

#### *Public Hearing*

If you wish to speak at the public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT** by 4 p.m., EDT on June 7, 2023. If you are disabled and need reasonable accommodations to attend a public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT**. We will arrange the location and time of the hearing with those persons requesting the hearing. If no one requests an opportunity to speak, we will not hold a hearing.

To assist the transcriber and ensure an accurate record, we request, if possible, that each person who speaks at the public hearing provide us with a written copy of his or her comments. The public hearing will continue on the specified date until everyone scheduled to speak has been given an opportunity to be heard. If you are in the audience and have not been scheduled to speak and wish to do so, you will be allowed to speak after those who have been scheduled. We will end the hearing after everyone scheduled to speak and others present in the audience who wish to speak, have been heard.

#### *Public Meeting*

If only one person requests an opportunity to speak, we may hold a public meeting rather than a public hearing. If you wish to meet with us to discuss the amendment, please request a meeting by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**. All such meetings are open to the public and, if possible, we will post notices of meetings at the locations listed under **ADDRESSES**. We will make a written summary of each meeting a part of the administrative record.

### IV. Procedural Determinations

#### *Executive Order 12866—Regulatory Planning and Review and Executive Order 13563—Improving Regulation and Regulatory Review*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance, dated October 12, 1993, the approval of State program amendments is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

#### *Other Laws and Executive Orders Affecting Rulemaking*

When a State submits a program amendment to OSMRE for review, our regulations at 30 CFR 732.17(h) require us to publish a notice in the **Federal Register** indicating receipt of the proposed amendment, its text or a summary of its terms, and an opportunity for public comment. We conclude our review of the proposed amendment after the close of the public comment period and determine whether the amendment should be approved, approved in part, or not approved. At that time, we will also make the determinations and certifications required by the various laws and Executive orders governing the rulemaking process and include them in the final rule.

#### **List of Subjects in 30 CFR Part 938**

Intergovernmental relations, Surface mining, Underground mining.

**Thomas D. Shope,**

*Regional Director, North Atlantic—Appalachian Region.*

[FR Doc. 2023–10821 Filed 5–22–23; 8:45 am]

**BILLING CODE 4310–05–P**

## **DEPARTMENT OF THE INTERIOR**

### **Office of Surface Mining Reclamation and Enforcement**

#### **30 CFR Part 938**

[SATS No. PA–173–FOR; Docket ID: OSM–2021–0005; S1D1S SS08011000 SX064A000 234S180110; S2D2S SS08011000 SX064A000 23XS501520]

#### **Pennsylvania Regulatory Program**

**AGENCY:** Office of Surface Mining Reclamation and Enforcement, Interior.

**ACTION:** Proposed rule; public comment period and opportunity for public hearing on proposed amendment.

**SUMMARY:** We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are announcing receipt of a proposed amendment to the Pennsylvania regulatory program (hereinafter, the Pennsylvania program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). Through this submission, Pennsylvania addresses regulations regarding water replacement provisions that were disapproved by us in 2005. This document gives the times and locations that the Pennsylvania program and this proposed amendment to that program are available for your inspection, the comment period during



which you may submit written comments on the amendment, and the procedures that we will follow for the public hearing, if one is requested.

**DATES:** We will accept written comments on this amendment until 4 p.m., Eastern Daylight Time (EDT), June 22, 2023. If requested, we may hold a public hearing or meeting on the amendment on June 20, 2023. We will accept requests to speak at a hearing until 4 p.m., EDT on June 7, 2023.

**ADDRESSES:** You may submit comments, identified by SATS No. PA-173-FOR, by any of the following methods:

- *Mail/Hand Delivery:* Ben Owens, Acting Field Office Director, Pittsburgh Field Office, 3 Parkway Center South, 2nd Floor, Pittsburgh, PA, 15220.

- *Fax:* (412) 937-2827.

- *Email:* [bowens@osmre.gov](mailto:bowens@osmre.gov).

- *Federal eRulemaking Portal:* The amendment is assigned the Docket ID: OSM-2021-0005, if you would like to submit comments go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

*Instructions:* All submissions received must include the agency name and docket number for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Comment Procedures” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* For access to the docket to review copies of the Pennsylvania program, this amendment, a listing of any scheduled public hearings or meetings, and all written comments received in response to this document, you must go to the address listed below during normal business hours, Monday through Friday, excluding holidays. You may receive one free copy of the amendment by contacting OSMRE’s Pittsburgh Field Office or the full text of the program amendment is available for you to read at <https://www.regulations.gov>.

Ben Owens, Acting Field Office Director, Pittsburgh Field Office, Office of Surface Mining Reclamation and Enforcement, 3 Parkway Center Drive South, 2nd Floor, Pittsburgh, PA 15220, Telephone: (412) 937-2827, Email: [bowens@osmre.gov](mailto:bowens@osmre.gov)

In addition, you may review a copy of the amendment during regular business hours at the following location:

Nathan A. Houtz, P.G., Director, Bureau of Mining Programs, Pennsylvania Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 8461, Harrisburg, PA 17101-8461

**FOR FURTHER INFORMATION CONTACT:** Ben Owens, Acting Field Office Director, Pittsburgh Field Office, Office of Surface Mining Reclamation and Enforcement, 3 Parkway Center Drive South, 2nd Floor, Pittsburgh, PA 15220 Telephone: (412) 937-2827. Email: [bowens@osmre.gov](mailto:bowens@osmre.gov).

**SUPPLEMENTARY INFORMATION:**

I. Background on the Pennsylvania Program  
 II. Description of the Proposed Amendment  
 III. Public Comment Procedures  
 IV. Statutory Orders and Executive Reviews

**I. Background on the Pennsylvania Program**

Section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its approved State program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal regulations. See 30 U.S.C. 1253(a)(1) and (7). Based on these criteria, the Secretary of the Interior conditionally approved the Pennsylvania program on July 30, 1982. You can find background information on the Pennsylvania program, including the Secretary’s findings, the disposition of comments, and conditions of approval of the Pennsylvania program in the July 30, 1982 **Federal Register** (47 FR 33050). You can also find later actions concerning the Pennsylvania program and program amendments at 30 CFR 938.11, 938.12, 938.13, 938.15, and 938.16.

**II. Description of the Proposed Amendment**

By letter dated August 5, 2021, (Administrative Record No. PA 907.00), Pennsylvania sent us an amendment to its program under SMCRA (30 U.S.C. 1201 *et seq.*). This submission addresses several previously not approved items relating to inconsistencies between Pennsylvania’s Surface Coal Mining Program (Program) and Federal regulatory requirements relating to water supply replacement as specified at 30 CFR 938.12(c). On May 13, 2005, we published a final rule notice that disapproved five provisions submitted by Pennsylvania pertaining to their water replacement provisions (70 FR 25472). This submission proposes to address those disapprovals. Pennsylvania has submitted several proposed revisions to their water replacement provisions intended to ensure that their water replacement requirements are consistent with SMCRA.

Pennsylvania determined that 25 Pa. Code sections 87.119 and 88.107 require extensive reorganization for clarity. Therefore, for ease of reference, Pennsylvania has reserved these section numbers in their entirety and adopted sections 87.119a and 88.107a respectively. Several minor editorial changes were made throughout. Substantive changes are summarized as follows:

1. Section 4.2(f)(4) of PA SMCRA was not approved because it allowed for final bond release when there is an outstanding Pennsylvania Department of Environmental Protection (Department) water supply replacement order. See 30 CFR 938.12(c)(1). Sections 87.119(i) and 88.107(i) (relating to hydrologic balance: water rights and replacement) were not approved for the same reason of allowing for final bond release when there is an outstanding Department order. See 30 CFR 938.12(c)(7). The program amendment proposes to eliminate the ability to release bond when a Department order issued under the water supply replacement section is under appeal.

2. 25 Pa. Code Sections 87.1 and 88.1 (Relating to definitions) and 25 Pa. Code Sections 87.119(a)(1)(v) and 88.107(a)(1)(v) (requiring that a restored or replaced water supply shall not result in more than a “de minimis cost increase” to operate and maintain) were also not approved in 2005. This is because it established a less stringent standard than is required by the Federal regulations. 30 CFR 938.12(c)(4) and (5) require that no additional costs be passed along to the water supply owner. This amendment proposes to delete the term “de minimis cost increase” and references thereto making it just as effective as the regulations. See 30 CFR 938.12(c)(4) and (5).

3. 25 Pa. Code Sections 87.119(a) and 88.107(a) were not approved in 2005 because they did not include a requirement to provide temporary replacement water supply. Furthermore, they allowed for the replacement supply to be of a lesser quantity and quality than the pre-mining water supply. See 30 CFR 938.12(c)(5). The proposed revisions amend the Pennsylvania Surface Mining Regulations to render them consistent, where possible, with existing Underground Coal Mining Regulations, specifically 25 Pa. Code Chapter 89.145, which sets forth program provisions that define circumstances where a temporary replacement water supply is required and direct that the supplied temporary or permanent replacement water supply is not of a lower quantity or quality.

4. 25 Pa. Code Section 87.119(a)(3) and 88.107(a)(3) were not approved because they allowed persons with an ownership interest in the water supply to waive the requirements to restore or replace the water supply. The program amendment proposes that the Department may waive the restoration or replacement water supply requirement, if it is determined by the Department that the affected water supply is to be abandoned. All persons who possess an ownership interest in the water supply would be required to submit a notarized written statement of knowingly and willingly agreeing to said abandonment.

5. Sections 87.119(g) and 88.107(g) were not approved because they allowed for operators to recover costs in the event that an operator successfully appeals a Department order to restore or replace water supply. OSMRE did not approve these regulations because section 4.2(f)(5) of PASMCR which provided statutory authority for the regulations was repealed in 2000. As a result, there was no statutory authority for these regulations. The program amendment proposes to allow an operator or mine owner to pursue recovery costs if they prevail in an appeal of a Department order to replace a water supply in accordance with 27 Pa.C.S. section 7708.

#### A. Proposed Revisions in Response To Disapprovals at 938.12(c)

In its August 5, 2021 submission (Administrative Record No. PA 907.00), the Department explained that the changes it was proposing to 87.119 and 88.107 required extensive reorganization, and that, to facilitate this, the sections were replaced by the new sections 87.119a and 88.107a. Additional detail on these and other changes proposed in the Department's amendment are discussed below.

##### a. Definitions

i. “*De minimis cost increase*” is proposed to be deleted as required by OSMRE.

ii. “*Alternative water supply information*” proposes revision to sections 87.47 and 88.27 to specify that any affected “water supply” be identified and include water supplies replacement cost calculations be included in the permit application. Additionally, the Department will provide notice to water supply owners for said supplies.

iii. “*Operation and maintenance costs*” is proposed to be included to ensure consistency with State law.

iv. “*Water supply*” is proposed revised to specify that natural soil moisture is not a water supply.

v. “*Water supply owner*” is proposed to be included and that the term be used throughout each provision to avoid repetition of using both “landowner” and “water supply company” terms.

vi. “*Water supply surveys*” is proposed relocated from definitions to the specific section in each chapter.

b. Sections 87.119a and 88.107a propose language setting out requirements for the operator or mine owner, who affects a water supply to any demonstrable extent by contamination, pollution, diminution or interruption, to promptly provide temporary replacement water supplies as defined at 30 CFR 701.5.

c. Sections 87.119a(a) and 88.107a(a) (Water supply surveys), proposes language expanding the detailed requirements for a water supply survey.

d. Sections 87.119a(a)(1) and 88.107a(a)(1) propose expanding existing requirements for the water supply survey, drawing provisions from 25 Pa. Code 89.145a, which govern water supply surveys for underground coal mining. The resulting proposed regulation would address the following requirements:

i. location and type of the water supply;

ii. uses of the water supply, both existing and reasonably foreseeable future uses;

iii. the chemical and physical characteristics of the water;

iv. historic and recent quantity measurements and other hydrologic data;

v. physical description of the water supply;

vi. sufficient sampling and other measurements to document the seasonal variation in hydrologic conditions of the water supply.

e. Sections 87.119a(a)(2) and 88.107a(a)(2) propose the requirements for operators or mine owners to submit the water supply survey to the Department, to the water supply owner, and the water supply user, prior to permit issuance.

f. Sections 87.119a(a)(3) and 88.107a(a)(3) propose the requirements for operators or mine owners to complete a water supply survey prior to the time a water supply is susceptible to mining-related effects and that the survey shall be included as part of the application for a surface mining permit.

g. Sections 87.119a(a)(4) and 88.107a(a)(4) regarding rejection of pre-mining or post-mining surveys by the water supply owner, reorganize the requirements with regard to “defenses

to presumption of liability” and “notification to the Department.”

h. Sections 87.119a(b) and 88.107a(b) (Water supply replacement obligation), propose language amending, through enhanced specificity, the existing requirement that an operator or mine owner to restore or replace an affected water supply, no matter how minimal, with a permanent alternative source to meet reasonably foreseeable uses of the existing water supply and that for any water supply that will, with a reasonable degree of certainty establish by supporting evidence, be affected by contamination, pollution, diminution or interruption by the proposed mining, the operator or mine owner shall provide a replacement supply prior to commencing the activity. In addition, it proposes to require that the operator or mine owner provide to the Department, in writing, a description of the locations of a restored or replaced water supply.

i. Sections 87.119a(c) and 88.107a(c) (Temporary water supplies) propose requirements that, if the Department has determined in a preliminary review that the water loss is related to mining activity, a temporary water supply, adequate to meet pre-mining needs, must be provided within 24 hours if no alternate source of water is readily available to the water supply owner or user.

j. Sections 87.119a(d) and 88.107a(d) (Immediate replacement of water supply by the Department) propose language addressing the immediate replacement of a water supply and the Department's authority to recover costs from the responsible operator or mine owner, as relocated verbatim from sections 87.119(e) and 88.107(f).

k. Sections 87.119a(e) and 88.107a(e) (Reimbursement), propose new requirements addressing reimbursement of a water supply owner or user based on a negotiation in circumstances where a water supply owner or user has replaced a water supply that an operator or mine owner is responsible for replacing. This requirement includes a process should disputes arise and the determination by the Department of the fair cost reimbursement. This requirement also imposes a 5-year reimbursement claim period until final bond release.

l. Sections 87.119a(f) and 88.107a(f) (Adequacy of permanently restored or replaced water supply) propose language expanding the concepts of “adequate quality” and “adequate quantity” in permanently restored or replaced water supplies and eliminates references to the concept of *de minimis* costs of operation and maintenance.

m. *Sections 87.119a(g) and 88.107a(g)* (Increased operation and maintenance costs) propose language describing the procedure for determining annual operation and maintenance costs and providing for these costs so that the restored or replaced water supply is no more costly to operate and maintain than the original water supply.

n. *Sections 87.119a(h) and 88.107a(h)* (Special provisions for operation and maintenance costs) propose language clarifying two provisions for operation and maintenance costs: when the ownership of the supply changes; and when there are multiple supplies that have been replaced with associated increases in costs.

o. *Sections 87.119a(i) and 88.107a(i)* (Waivers) propose to address compensation as an alternative to replacement and would provide that only a water supply owner may waive the operator's or mine owner's responsibility to replace a water supply, which may occur only when replacement is not necessary to achieve the approved post-mining land use.

p. *Sections 87.119a(j) and 88.107a(j)* (Presumption of liability) propose to restate provisions in PASMCR that provide that the operator or mine owner is presumed liable for water supply pollution and diminution within 1,000 feet of areas affected by mining and restate the five defenses to the presumption of liability that exist in PASMCR. This revision does not propose to make any changes to the statutory defenses but clarifies the criteria for the operator or mine owner to be excluded from the presumption of responsibility.

q. *Sections 87.119a(k) and 88.107a(k)* (Operator cost recovery) propose replacement of language disapproved in 2005 due to the repeal of section 4.2(f)(5) of PASMCR. They address an operator's or mine owner's ability to recover costs by referencing the current statute related to cost for mining proceedings at 27 Pa.C.S. section 7708.

r. *Sections 87.119a(l) and 88.107a(l)* (Other remedies) propose language clarifying that nothing in the regulations would prevent a water supply owner or user from pursuing any other remedy provided in law or equity when claiming pollution or diminution of a water supply. The language also clarifies that nothing in the regulations prevents an operator or mine owner from pursuing other legal remedies should they incur costs in restoring or replacing a supply that experienced pollution or diminution caused by third parties.

s. *Sections 87.119a(m) and 88.107a(m)* (Issuance of new permits)

propose the removal of language from previous sections that indicated that a Department order to restore or replace a water supply would not affect final bond release.

### *B. Revisions to Other Sections are Solely for the Purpose of Establishing Consistency or To Adjust the References Affected by Renumbering*

The full text of the program amendment is available for you to read at the locations listed above under **ADDRESSES** or at <https://www.regulations.gov>.

### **III. Public Comment Procedures**

Under the provisions of 30 CFR 732.17(h), we are seeking your comments on whether the amendment satisfies the applicable program approval criteria of 30 CFR 732.15. If we approve the amendment, it will become part of the State program.

#### *Electronic or Written Comments*

If you submit written or electronic comments on the proposed rule during the 30-day comment period, they should be specific, confined to issues pertinent to the proposed regulations, and explain the reason for any recommended change(s). We appreciate any and all comments, but those most useful and likely to influence decisions on the final regulations will be those that either involve personal experience or include citations to and analyses of SMCRA, its legislative history, its implementing regulations, case law, other pertinent State or Federal laws or regulations, technical literature, or other relevant publications.

We cannot ensure that comments received after the close of the comment period (see **DATES**) or sent to an address other than those listed (see **ADDRESSES**) will be included in the docket for this rulemaking and considered.

#### **Public Availability of Comments**

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

#### *Public Hearing*

If you wish to speak at the public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT** by 4 p.m., EDT on June 7, 2023. If you are

disabled and need reasonable accommodations to attend a public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT**. We will arrange the location and time of the hearing with those persons requesting the hearing. If no one requests an opportunity to speak, we will not hold a hearing.

To assist the transcriber and ensure an accurate record, we request, if possible, that each person who speaks at the public hearing provide us with a written copy of his or her comments. The public hearing will continue on the specified date until everyone scheduled to speak has been given an opportunity to be heard. If you are in the audience and have not been scheduled to speak and wish to do so, you will be allowed to speak after those who have been scheduled. We will end the hearing after everyone scheduled to speak and others present in the audience who wish to speak, have been heard.

#### *Public Meeting*

If only one person requests an opportunity to speak, we may hold a public meeting rather than a public hearing. If you wish to meet with us to discuss the amendment, please request a meeting by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**. All such meetings are open to the public and, if possible, we will post notices of meetings at the locations listed under **ADDRESSES**. We will make a written summary of each meeting a part of the administrative record.

### **IV. Statutory Orders and Executive Reviews**

#### *Executive Order 12866—Regulatory Planning and Review and Executive Order 13563—Improving Regulation and Regulatory Review*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance, dated October 12, 1993, the approval of State program amendments is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

#### *Other Laws and Executive Orders Affecting Rulemaking*

When a State submits a program amendment to OSMRE for review, our regulations at 30 CFR 732.17(h) require us to publish a notice in the **Federal Register** indicating receipt of the proposed amendment, its text or a summary of its terms, and an

opportunity for public comment. We conclude our review of the proposed amendment after the close of the public comment period and determine whether the amendment should be approved, approved in part, or not approved. At that time, we will also make the determinations and certifications required by the various laws and Executive orders governing the rulemaking process and include them in the final rule.

#### List of Subjects in 30 CFR Part 938

Intergovernmental relations, Surface mining, Underground mining.

**Thomas D. Shope,**

*Regional Director, North Atlantic—Appalachian Region.*

[FR Doc. 2023–10819 Filed 5–22–23; 8:45 am]

BILLING CODE 4310–05–P

## DEPARTMENT OF THE INTERIOR

### Office of Surface Mining Reclamation and Enforcement

#### 30 CFR Part 948

[SATS No. WV–128–FOR; Docket ID: OSM–2022–0004; S1D1S SS08011000 SX064A000 222S180110; S2D2S SS08011000 SX064A000 22S501520]

#### West Virginia Regulatory Program

**AGENCY:** Office of Surface Mining Reclamation and Enforcement, Interior.

**ACTION:** Proposed rule, public comment period and opportunity for public hearing on proposed amendment.

**SUMMARY:** We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are announcing receipt of a proposed amendment to the West Virginia regulatory program (hereinafter, the West Virginia program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). The West Virginia Department of Environmental Protection (WVDEP) seeks to amend its statutory provisions to develop and maintain a database to track reclamation liabilities in the WVDEP Special Reclamation Program. This document gives the times and locations that the West Virginia program and this proposed amendment to that program are available for your inspection, the comment period during which you may submit written comments on the amendment, and the procedures that we will follow for the public hearing, if one is requested.

**DATES:** We will accept written comments on this amendment until 4 p.m., Eastern Daylight Time (EDT), June 22, 2023. If requested, we may hold a

public hearing or meeting on the amendment on June 20, 2023. We will accept requests to speak at a hearing until 4 p.m., EDT on June 7, 2023.

**ADDRESSES:** You may submit comments, identified by SATS No. WV–128–FOR, by any of the following methods:

- *Mail/Hand Delivery:* Mr. Ben Owens, Acting Field Office Director, Charleston Field Office, Office of Surface Mining Reclamation and Enforcement, 1027 Virginia Street East, Charleston, West Virginia 25301.

- *Fax:* (304) 347–7170.

- *Federal eRulemaking Portal:* The amendment has been assigned Docket ID: OSM–2022–0004. If you would like to submit comments, go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

*Instructions:* All submissions received must include the agency name and docket number for this rulemaking. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Comment Procedures” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* For access to the docket to review copies of the West Virginia program, this amendment, a listing of any scheduled public hearings or meetings, and all written comments received in response to this document, you must go to the address listed below during normal business hours, Monday through Friday, excluding holidays. You may receive one free copy of the amendment by contacting OSMRE’s Charleston Field Office or the full text of the program amendment is available for you to read at [www.regulations.gov](http://www.regulations.gov).

Mr. Ben Owens, Acting Field Office Director, Charleston Field Office, Office of Surface Mining Reclamation and Enforcement, 1027 Virginia Street, East Charleston, West Virginia 25301, Telephone: (304) 347–7158, Email: [osm-chfo@osmre.gov](mailto:osm-chfo@osmre.gov).

In addition, you may review a copy of the amendment during regular business hours at the following location: West Virginia Department of Environmental Protection, 601 57th Street, SE, Charleston, West Virginia 25304, Telephone: (304) 926–0490.

**FOR FURTHER INFORMATION CONTACT:** Mr. Ben Owens, Acting Field Office Director, Charleston Field Office Telephone: (304) 347–7158. Email: [osm-chfo@osmre.gov](mailto:osm-chfo@osmre.gov)

#### **SUPPLEMENTARY INFORMATION:**

I. Background on the West Virginia Program  
II. Description of the Proposed Amendment  
III. Public Comment Procedures  
IV. Statutory and Executive Order Reviews

## I. Background on the West Virginia Program

Section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its approved State program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal regulations. See 30 U.S.C. 1253(a)(1) and (7). On the basis of these criteria, the Secretary of the Interior conditionally approved the West Virginia program on January 21, 1981. You can find additional background information on the West Virginia program, including the Secretary’s findings, the disposition of comments, and conditions of approval of the West Virginia program in the January 21, 1981, **Federal Register** (46 FR 5915–5956). You can also find later actions concerning West Virginia’s program and program amendments at 30 CFR 948.10, 948.12, 948.13, 948.15, and 948.16.

## II. Description of the Proposed Amendment

By letter dated August 23, 2021 (Administrative Record No. 1658), we required WVDEP to submit a program amendment to ensure appropriate tracking of existing reclamation liabilities (including water treatment) at coal mining operations. This tracking must ensure that reclamation liabilities are accurate and up-to-date. Tracking will enable an accurate assessment of West Virginia’s alternative bonding system’s reclamation liabilities so that solvency of the State’s Special Reclamation Fund and the Special Reclamation Water Trust Fund can be determined. To comply with our request, West Virginia, by letter dated March 29, 2022 (Administrative Record No. 1666), sent us an amendment to its program under SMCRA (30 U.S.C. 1201 *et seq.*). The State seeks to amend its statutory program to develop and maintain a database to track reclamation liabilities in the WVDEP Special Reclamation Program.

House Bill 4758 (HB 4758) was signed by the Governor on March 28, 2022, and will become effective under State Law on June 6, 2022. HB 4758 amends WVSMCRA at *WV 22–3–11(i)(2)* and proposes to develop and maintain a database to track existing reclamation liabilities, including water treatment, at coal mining operation in the state of West Virginia that were permitted after August 3, 1977. This information is to

be updated on a quarterly basis beginning July 2022, to ensure that actuarial studies of the special reclamation fund and special reclamation water trust fund are informed by current data.

The full text of the program amendment is available for you to read at the locations listed above under **ADDRESSES** or at [www.regulations.gov](http://www.regulations.gov).

### III. Public Comment Procedures

Under the provisions of 30 CFR 732.17(h), we are seeking your comments on whether the amendment satisfies the applicable program approval criteria of 30 CFR 732.15. If we approve the amendment, it will become part of the State program.

#### *Electronic or Written Comments*

If you submit written or electronic comments on the proposed rule during the 30-day comment period, they should be specific, confined to issues pertinent to the proposed regulations, and explain the reason for any recommended change(s). We appreciate any and all comments, but those most useful and likely to influence decisions on the final regulations will be those that either involve personal experience or include citations to and analyses of SMCRA, its legislative history, its implementing regulations, case law, other pertinent State or Federal laws or regulations, technical literature, or other relevant publications.

We cannot ensure that comments received after the close of the comment period (see **DATES**) or sent to an address other than those listed (see **ADDRESSES**) will be included in the docket for this rulemaking and considered.

#### *Public Availability of Comments*

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

#### *Public Hearing*

If you wish to speak at the public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT** by 4 p.m., EDT on June 7, 2023. If you are disabled and need reasonable accommodations to attend a public hearing, contact the person listed under **FOR FURTHER INFORMATION CONTACT**. We will arrange the location and time of the

hearing with those persons requesting the hearing. If no one requests an opportunity to speak, we will not hold a hearing.

To assist the transcriber and ensure an accurate record, we request, if possible, that each person who speaks at the public hearing provide us with a written copy of his or her comments. The public hearing will continue on the specified date until everyone scheduled to speak has been given an opportunity to be heard. If you are in the audience and have not been scheduled to speak and wish to do so, you will be allowed to speak after those who have been scheduled. We will end the hearing after everyone scheduled to speak and others present in the audience who wish to speak, have been heard.

#### *Public Meeting*

If only one person requests an opportunity to speak, we may hold a public meeting rather than a public hearing. If you wish to meet with us to discuss the amendment, please request a meeting by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**. All such meetings are open to the public and, if possible, we will post notices of meetings at the locations listed under **ADDRESSES**. We will make a written summary of each meeting a part of the administrative record.

### IV. Statutory and Executive Order Reviews

#### *Executive Order 12866—Regulatory Planning and Review and Executive Order 13563—Improving Regulation and Regulatory Review*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance, dated October 12, 1993, the approval of State program and is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

#### *Other Laws and Executive Orders Affecting Rulemaking*

When a State submits a program amendment to OSMRE for review, our regulations at 30 CFR 732.17(h) require us to publish a notice in the **Federal Register** indicating receipt of the proposed amendment, its text or a summary of its terms, and an opportunity for public comment. We conclude our review of the proposed amendment after the close of the public comment period and determine whether the amendment should be approved,

approved in part, or not approved. At that time, we will also make the determinations and certifications required by the various laws and Executive orders governing the rulemaking process and include them in the final rule.

### List of Subjects in 30 CFR Part 948

Intergovernmental relations, Surface mining, Underground mining.

**Thomas D. Shope,**

*Regional Director, Regional Director, North Atlantic—Appalachian Region.*

[FR Doc. 2023-10820 Filed 5-22-23; 8:45 am]

**BILLING CODE 4310-05-P**

## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

#### 33 CFR Part 149

**46 CFR Parts 2, 31, 32, 34, 35, 39, 56, 76, 77, 95, 96, 105, 107, 108, 109, 115, 116, 118, 132, 147, 159, 160, 161, 162, 163, 164, 167, 169, 181, 195, and 199**

[Docket No. USCG-2020-0519]

**RIN 1625-AC76**

#### **Marine Equipment on Board Vessels and Offshore Units or Facilities**

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes to revise regulations associated with the approval, carriage, and maintenance of certain safety equipment required on board vessels and offshore units or facilities. We are taking this action to align the regulations with the current industry practice and provide more transparent regulations for the regulated industry. These proposed revisions would eliminate outdated requirements, reduce inspection and testing requirements, and update standards incorporated by reference. Additionally, this project would remove obsolete sections and align conflicting sections with the International Convention for the Safety of Life at Sea.

**DATES:** Comments and related material must be received by the Coast Guard on or before July 24, 2023.

**ADDRESSES:** You may submit comments identified by docket number USCG-2020-0519 using the Federal Decision Making Portal at [www.regulations.gov](http://www.regulations.gov). See the "Public Participation and Request for Comments" portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

Viewing material proposed for incorporation by reference. Make arrangements to view this material by calling the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document.

**FOR FURTHER INFORMATION CONTACT:** For information about this document, call or email Lieutenant Jon Taylor, Lifesaving and Fire Safety Division (CG-ENG-4), U.S. Coast Guard; telephone 202-372-1426, email [Jon.T.Taylor@uscg.mil](mailto:Jon.T.Taylor@uscg.mil).

#### SUPPLEMENTARY INFORMATION:

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#### I. Public Participation and Request for Comments

The Coast Guard views public participation as essential to effective rulemaking and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

**Submitting comments.** We encourage you to submit comments through the Federal Decision Making Portal at [www.regulations.gov](http://www.regulations.gov). To do so, go to [www.regulations.gov](http://www.regulations.gov), type USCG-2020-0519 in the search box and click "Search." Next, look for this document in the Search Results column, and click on it. Then click on the Comment option. If you cannot submit your material by using [www.regulations.gov](http://www.regulations.gov), email the person in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule for alternate instructions.

**Viewing material in docket.** To view documents mentioned in this proposed rule as being available in the docket, find the docket as described in the previous paragraph, and then select

"Supporting & Related Material" in the Document Type column. Public comments will also be placed in our online docket and can be viewed by following instructions on the [www.regulations.gov](http://www.regulations.gov) Frequently Asked Questions web page. That web page also explains how to subscribe for email alerts that will notify you when comments are posted or if a final rule is published. We review all comments received, but we will only post comments that address the topic of the proposed rule. We may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

**Personal information.** We accept anonymous comments. Comments we post to [www.regulations.gov](http://www.regulations.gov) will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see the Department of Homeland Security's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

**Public meeting.** We do not plan to hold a public meeting but we will consider doing so if we determine from public comments that a meeting would be helpful. We would issue a separate **Federal Register** notice to announce the date, time, and location of such a meeting.

#### II. Abbreviations

ASTM American Society for Testing and Materials  
 CFR Code of Federal Regulations  
 CG-BSX Coast Guard Office of Auxiliary and Boating Safety  
 CG-ENG Coast Guard Office of Design and Engineering Standards  
 COMDTINST Commandant Instruction  
 COSPAS Space System for the Search of Vessels in Distress  
 DHS Department of Homeland Security  
 EPIRB Emergency Position Indicating Radio Beacon  
 FCC Federal Communications Commission  
 FR Federal Register  
 IBR Incorporation by reference  
 IMO International Maritime Organization  
 ISO International Organization for Standardization  
 LSA Life-Saving Appliances  
 MISLE Marine Information for Safety and Law Enforcement  
 MODU Mobile offshore drilling unit  
 MSC Marine Safety Committee  
 MSHA Mine Safety and Health Administration  
 NIOSH National Institute for Occupational Safety and Health  
 NRTL Nationally recognized testing laboratory  
 NPRM Notice of proposed rulemaking  
 NVIC Navigation and Vessel Inspection Circular  
 OCFI Officer in Charge, Marine Inspection  
 OCS Outer Continental Shelf  
 OMB Office of Management and Budget

PHS Public Health Service  
 RTCM Radio Technical Commission for Maritime Services  
 SARSAT Search and Rescue Satellite-Aided Tracking  
 SCBA Self-contained breathing apparatus  
 § Section  
 SME Subject matter expert  
 SOLAS International Convention for the Safety of Life at Sea  
 U.S.C. United States Code

#### III. Basis and Purpose

The statutory authority for these regulations can be found in Title 46 of the United States Code (U.S.C.), Sections 3306 and 3703. The authority to issue regulations, pursuant to these sections, is delegated to the Commandant of the Coast Guard under Department of Homeland Security (DHS) Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

Under 46 U.S.C. 3306, the Secretary of DHS is required to prescribe necessary regulations to ensure safety of individuals and property on board vessels subject to inspection. This proposed rule would ensure the proper design, construction, alteration, repair, and operation of vessels subject to inspection.

Under 46 U.S.C. 3703, the Secretary is required to prescribe regulations for the design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of tank and cargo vessels that may be necessary for increased protection against hazards to life and property, navigation and vessel safety, and enhanced protection of the marine environment.

This proposed rule would revise titles 33 of the Code of Federal Regulations (CFR), chapter I, subchapters NN, and 46 CFR, chapter I, subchapters A, D, F, H, I, I-A, K, L, N, Q, R, T, U, and W. These subchapters are associated with approving, carrying, and maintaining certain safety equipment required on board vessels and offshore units or facilities. The proposed revisions in this notice of proposed rulemaking (NPRM) would eliminate outdated requirements, reduce inspection and testing requirements, modify submission requirements for equipment approval to allow materials to be submitted electronically, and update standards incorporated by reference. Additionally, this proposed rule would remove numerous obsolete sections and update sections to bring them into compliance with the International Convention for the Safety of Life at Sea (SOLAS) and related regulations.

**IV. Background**

The Coast Guard conducted a comprehensive review of regulations regarding the approval, carriage, and maintenance of marine equipment on U.S.-flagged vessels. The Coast Guard continues to review regulations with the goals of updating the references to incorporated standards that have been modified, clarifying language, and, where possible, providing additional regulatory flexibility and to minimize the regulatory burden on the affected vessels, and removing obsolete rules to ensure marine equipment requirements are current with emerging technology and industry standards.

**V. Discussion of Proposed Rule**

In general, this proposed rule would make the following changes to various subchapters in titles 33 and 46 of the CFR:

- (1) Modify equipment approval submission requirements to allow for materials to be submitted electronically to *typeapproval@uscg.mil*, instead of the existing requirement of paper submissions in triplicate;
- (2) Remove obsolete regulations for pilot hoists that are no longer allowed on U.S.-flagged vessels;
- (3) Allow vessel owners and operators to use a third party to test the properties and quality of their firefighting foam;
- (4) Revise the requirements for pressure vacuum relief valves to align with international consensus standards;
- (5) Update requirements for lifeboat and rescue boat releasing mechanisms

on board mobile offshore drilling units (MODUs) and Outer Continental Shelf (OCS) facilities to allow for lifeboats that serve as rescue boats to carry lifeboat releasing mechanisms;

(6) Remove prescriptive design requirements for lifeboat, rescue boat, and liferaft winch limit switches and align requirements with the Life-Saving Appliances (LSA) Code;

(7) Remove a redundant flame-spread testing requirement for nonmetallic piping used in certain vessels;

(8) Revise the “end-for-ending” requirement for launching appliance falls (wire ropes) to align with SOLAS, which allows for a fall replacement interval of 5 years without end-for-ending;

(9) Change the interval for hydrostatic testing of all inert gas firefighting extinguishing system bottles to align with the hydrostatic testing intervals for carbon dioxide and Halon firefighting extinguishing systems. The interval would change from at least once every 5 or 10 years (depending on bottle size) to once every 12 years;

(10) Remove the Mine Safety and Health Administration’s (MSHA) approval requirement for self-contained breathing apparatuses (SCBAs) because MSHA no longer certifies this type of equipment for marine use;

(11) Revise the standards of fire-resistant fiber-reinforced plastic resin used to manufacture survival craft and rescue boats to allow the use of additional international standards;

(12) Remove the requirement for Coast Guard approval of Emergency Position Indicating Radio Beacons (EPIRBs) and codify the current policy in which the Coast Guard reviews test data, instruction manuals, drawings and specifications of the EPIRB and issues a letter to the manufacturer stating whether the EPIRB satisfies all Radio Technical Commission for Maritime Services (RTCM) Recommended Standards. This aligns with the requirements as set out in 47 CFR 80.1061.

(13) Add an option for the use of fire detection systems as excess equipment for MODUs, and a grandfathering clause for fire extinguishers on board nautical school vessels;

(14) Make editorial changes to clarify language, correct typographical errors, and delete repetitive words;

(15) Update incorporations by reference (IBRs), remove outdated IBRs, and revise CFR cite references to the correct IBRs;

(16) Correct errors in fire extinguisher quantities and ratings from a previous rulemaking; and

(17) Clarify structural fire protection requirements for means of egress on 46 CFR subchapter K vessels.

Table 1 provides a list of the types of changes, summaries of the proposed changes, and the subparts affected by this proposed rule. Further explanation for each of these categories can be found after the table.

**TABLE 1—SUMMARY OF PROPOSED CHANGES AND CFR SUBPARTS AND SECTIONS AFFECTED**

Equipment involved or type of change	Proposed changes	Affected CFR subparts and sections
CFR References and Changes to IBRs.	1. Deletes references to outdated IBRs and corrects improper IBRs in regulation text. 2. Corrects improper CFR references.	46 CFR 115.810(b)(1), 46 CFR 118.500(d), 46 CFR 160.171–3, 46 CFR 160.174–3, 46 CFR 161.002–18(a)(3), 46 CFR 161.002–19(a)(3), 46 CFR 161.002–19(b)(3), 46 CFR 162.017–0, 46 CFR 164.106–3(a), 46 CFR 164.137–2(b)(2), 46 CFR 164.137–3(a), 46 CFR 164.138–2(a), 46 CFR 164.138–2(b)(2), 46 CFR 164.138–3(a), 46 CFR 164.139–2(a), 46 CFR 164.139–2(b)(2), 46 CFR 164.139–3(a).
Editorial .....	1. Clarifies language .....	33 CFR 149.410, 46 CFR 56.60–25(a)(4), 46 CFR 108.495, 46 CFR 162.017, 46 CFR 181.500(b)
Electronic Submissions .....	1. Adds option to submit equipment approval materials electronically.. 2. Removes requirement for multiple copies of submissions for equipment approval, if submitted electronically.	46 CFR 2.75–10(b), 46 CFR 159.001–5, 46 CFR 160.115–9(b), 46 CFR 160.115–13(g)(2), 46 CFR 160.132–9(b), 46 CFR 160.132–13(g)(2), 46 CFR 160.133–9(b), 46 CFR 160.133–13(g)(2), 46 CFR 160.135–9(b), 46 CFR 160.135–13(g)(2), 46 CFR 160.156–9(b), 46 CFR 160.156–13(g)(2), 46 CFR 160.170–9(b), 46 CFR 160.170–13(g)(2), 46 CFR 161.002–18(a), 46 CFR 161.002–19(a)(2), 46 CFR 161.012–5(a), 46 CFR 161.012–5(b)(2), 46 CFR 161.013–11(c)(1), 46 CFR 161.013–17, 46 CFR 162.050–15(a), 46 CFR 162.060–40(b), 46 CFR 164.009–9(a), 46 CFR 164.018–7(a), 46 CFR 164.018–7(b)(2).
End-for-Ending Launching Appliance Falls.	1. Removes requirement for “end-for-ending” for launching appliance falls, to align with SOLAS. 2. Revises interval for launching appliance falls replacement to 5 years.	46 CFR 109.301(j), 46 CFR 199.190(j).
EPIRB .....	Aligns Coast Guard acceptance of EPIRBs in 46 CFR with Federal Communications Commission (FCC) requirements in 47 CFR and standards established by the Space System for the Search of Vessels in Distress (COSPAS), Search and Rescue Satellite-Aided Tracking (SARSAT), and RTCM.	46 CFR 161.011–1, 46 CFR 161.011–5, 46 CFR 161.011–10.



TABLE 1—SUMMARY OF PROPOSED CHANGES AND CFR SUBPARTS AND SECTIONS AFFECTED—Continued

Equipment involved or type of change	Proposed changes	Affected CFR subparts and sections
Equipment Deletion .....	Deletes pilot hoist approval series, § 163.002, and associated references in various subchapters.	46 CFR 32.90–1(h), 46 CFR 77.40–1(h), 46 CFR 96.40–1(h), 46 CFR 108.719(h), 46 CFR 163.002, 46 CFR 195.40–1(h).
Fire Protection and Other Conforming Amendments.	1. Corrects fire extinguisher ratings ..... 2. Clarifies fire extinguisher quantities. 3. Adds option to allow use of nationally recognized testing laboratory (NRTL) listed and labeled fire detection systems as excess equipment for MODUs. 4. Adds grandfathering provision for fire extinguishers for public nautical school ships and sailing school ships.	46 CFR 34.10–90(a)(3), 46 CFR 34.50–10(a), 46 CFR 76.50–10(a), 46 CFR 95.50–10(a), 46 CFR 105.14(a), 46 CFR 108.103, 46 CFR 108.489(a)(3), 46 CFR 118.500(c), 46 CFR 167.45–40, 46 CFR 167.45–65, 46 CFR 167.45–70, 46 CFR 167.45–71, 46 CFR 167.45–75, 46 CFR 169.567(a), 46 CFR 169.568.
Foam Testing .....	1. Adds option for third-party testing for foam concentrates. 2. Aligns testing processes with requirements in SOLAS and Coast Guard Office of Design and Engineering Standards (CG–ENG) Policy Letter 01–20, Third Party Foam Concentration Analysis.	46 CFR 31.10–18(c), 46 CFR 107.235(b)(4).
Hydrostatic Testing for Inert Gas Cylinders.	Revises hydrostatic testing requirements for inert gas bottles to every 12 years.	46 CFR 147.66(a), 46 CFR 147.66(c).
MODU Lifesaving Appliance Release Mechanism.	1. Adds an option in 46 CFR subchapter I–A to allow lifeboats also serving as a rescue boat to have lifeboat release mechanisms instead of rescue boat release mechanisms. 2. Aligns this regulation with a similar regulation in 46 CFR subchapter W.	46 CFR 108.570(c)(3).
Nonmetallic Piping .....	Removes redundant fire testing requirements for nonmetallic piping in 46 CFR subchapter K.	46 CFR 116.405(f).
Pressure-Vacuum Relief Valves ..	1. Revises requirements for approving pressure-vacuum relief valves. 2. Updates IBR edition.	46 CFR 39.1005, 46 CFR 39.2011(b)(1), 46 CFR 162.017–1, 46 CFR 162.017–2, 46 CFR 162.017–3(n), 46 CFR 162.017–3(r), 46 CFR 162.017–6.
Resins for Lifeboats and Rescue Boats.	Removes approval series for fire-retardant resins and incorporates approval of these resins into approvals for lifeboats and rescue boats.	46 CFR 160.135–5(d), 46 CFR 160.135–7(b)(3)(iv)(A), 46 CFR 160.156–5(d), 46 CFR 160.156–7(b)(3)(iv)(A), 46 CFR 164.120.
Self-Contained Breathing Apparatus.	Removes obsolete requirement for MSHA approval for SCBAs.	46 CFR 35.30–20(c)(1), 46 CFR 77.35–5(b), 46 CFR 96.35–5(b), 46 CFR 108.497(a), 46 CFR 132.365(b)(1), 46 CFR 167.45–60(a), 46 CFR 169.717(a)(1).
Stairwell Structural Fire Protection and Means of Egress.	Clarifies the stairwell structural fire protection and means of egress requirements for 46 CFR subchapter K vessels.	46 CFR 116.400(c).
Winches and Davits .....	1. Removes prescriptive design requirements for winch and davit safety devices under the LSA Code. 2. Aligns the safety device requirement with the LSA Code.	46 CFR 160.115–7(b)(6)(vi).

*CFR References and Changes to IBRs*

This rule proposes to delete references to outdated IBR material in regulation text, delete corresponding IBR titles and information listed in the centralized IBR section(s), correct improper IBR cites in regulatory text, and correct improper CFR references as outlined in table 1. See table 3 for additional information.

*Editorial*

Editorial changes in this proposed rule would clarify language, correct typographical errors, and delete repetitive language in various subchapters in titles 33 and 46 of the CFR as noted in table 1.

*Electronic Submissions*

Current regulations require manufacturers that produce marine

safety equipment needing approval to mail their paper application and supporting documentation in triplicate. The requirement for submitting paper plans in triplicate allows the office reviewing the plans to mark the plans as “approved” and return one copy to the submitter, retain one copy in the office’s files, and forward the third copy to the cognizant Officer in Charge, Marine Inspection (OCMI). However, in current practice, manufacturers submit their applications electronically via *typeapproval@uscg.mil*. When plans are submitted electronically, they can be stamped electronically and filed or distributed, as described above, without the need for printing or duplication. According to internal mail tracking data, in the last 5 years, 99.2 percent of all submissions related to applications for equipment approval were submitted

electronically. This proposed rule would modify the submission requirements for equipment approval to codify the use of electronic submissions. The CFR sections listed in table 1 would be updated to include optional electronic submissions and remove requirements to submit multiple copies of plans or test reports. If a manufacturer desires a stamped hard copy of plans, the hard copy plans may be submitted in triplicate, or accompanied by electronic plans, so that the copies may be filed or distributed as described above.

*End-for-Ending Launching Appliance Falls*

Currently, 46 CFR 109.301(j) and 199.190(j) require that falls for launching appliances be replaced when necessary due to deterioration or at least



every 5 years, whichever is earlier. Additionally, the falls must be turned end-for-end not more than 30 months after installation (the phrase, “turned end-for-end” means rotating the wire ropes so the ropes wear evenly). These regulations allow an alternative to the end-for-ending requirements; however, in that case, the falls must be replaced at least every 4 years. This rule proposes to remove the “end-for-ending” requirement for these launching appliance falls and require falls to be replaced at least every 5 years to align with SOLAS Chapter III, which allows for a fall replacement interval of 5 years without end-for-ending. This proposed rule would keep the requirement to replace falls when they show signs of deterioration. It has been Coast Guard policy per Commandant Instruction (COMDTINST) M16000.7B, *USCG Marine Safety Manual Vol. II B1 P.3.a(1)(c)*<sup>1</sup> that falls may be replaced in 5-year intervals if they are serviced in accordance with SOLAS Chapter III, Regulation 20.4.

#### EPIRB

Section 161.011–5 of title 46 of the CFR requires Coast Guard approval of EPIRBs. However, the FCC in its “Maritime Communications” final rule (68 **Federal Register** (FR) 46974, August 7, 2003), changed the approval process for EPIRBs in 47 CFR 80.1061. This update, which is still in effect, required FCC approval for EPIRBs, but required the Coast Guard to accept EPIRBs compliant to COSPAS, SARSAT, and RTCM standards before the FCC’s review. Currently, the Coast Guard issues a letter stating compliance with these standards and does not issue approval for EPIRBs. This rule proposes to remove the requirement for Coast Guard approval of EPIRBs and align the Coast Guard’s responsibility in title 46 of the CFR with the process in title 47 of the CFR.

#### Equipment Deletion

This rule proposes to delete references to pilot hoists as approved equipment in 46 CFR subpart 163.002 by removing this subpart from the CFR. In 2010, an International Maritime Organization (IMO) Resolution of the Marine Safety Committee (MSC), Resolution MSC.308(88),<sup>2</sup> banned the

use of pilot hoists on SOLAS vessels and updated SOLAS Chapter V requirements accordingly. Further, pilots in the United States do not use pilot hoists to embark a vessel. There are currently no Coast Guard-approved pilot hoists and there has not been a Coast Guard-approved pilot hoist since 2000. This proposed rule would also remove references to pilot hoists in 46 CFR subchapters D, H, I, I–A, and U.

#### Fire Protection and Other Conforming Amendments

Navigation and Vessel Inspection Circular (NVIC) 7–80, *Use of Fire Detection Systems Which are Not Approved Under 46 CFR 161.002*,<sup>3</sup> allows the use of non-approved fire detection systems as excess equipment on board vessels if the system is listed and labeled by an NRTL. This proposed rule would add the allowance for a fire detection system listed and labeled by an NRTL to be used as excess equipment for 46 CFR subchapter I–A aligned with the guidance set forth in NVIC 7–80.

Also, the 2016 final rule, “Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment” (81 FR 48219, July 22, 2016), updated the design and approval standards for fire extinguishing equipment by changing the portable fire extinguisher ratings system from a weight-based rating system to the Underwriters Laboratories, Inc. (UL) performance-based rating system. That 2016 rule added a grandfathering clause to several sections in titles 33 and 46 of the CFR;<sup>4</sup> however, this clause was mistakenly left out for public nautical school ships and sailing school ships in 46 CFR subchapter R. This proposed rule would correct the oversight.

The previously mentioned “Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment” rule also updated the portable fire extinguisher ratings system throughout title 46 of the CFR. In implementing that complex rule, there were errors in extinguisher quantities and ratings in 46 CFR subchapters H, I, K, and R as listed in table 1. This

Sea, 1974, as amended,” adopted December 3, 2010, [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MSCResolutions/MSC.308\(88\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MSCResolutions/MSC.308(88).pdf).

<sup>3</sup> Department of Transportation and U.S. Coast Guard, NVIC 7–80, “Use of Fire Detection Systems Which are Not Approved Under 46 CFR 161.002,” <https://www.dco.uscg.mil/Portals/9/DCCODocuments/5p/5ps/NVIC/1980/n7-80.pdf>.

<sup>4</sup> The 2016 final rule applied the grandfathering clause for vessels identified in 33 CFR 145.15 and 149.410, and 46 CFR 25.30–80, 34.50–80, 76.50–80, 95.50–80, 108.491(b), 132.250, and 193.50–90.

proposed rule would correct those errors.

#### Foam Testing

Tank vessels and MODUs fitted with deck foam systems are required by 46 CFR 31.10–18(c) and 46 CFR 107.235(b)(4) to submit a representative sample of foam concentrate to the foam manufacturer to test foam gravity, pH, percentage of water dilution, and solid content. There are numerous laboratories other than those owned by foam manufacturers that can test firefighting foam concentrates. This proposed rule would add an option to allow third-party testing for firefighting foam concentrate. Allowing third parties that are accepted by the Coast Guard to test firefighting foam concentrates could be less burdensome to the vessel owners and operators and provide a level of safety similar to the current requirements that the manufacturer of the firefighting foam be the sole tester. Additionally, using a third party to test the properties of firefighting foam would increase the number of companies available to test firefighting foam properties. This proposed rule would also align with SOLAS requirements and codify CG–ENG Policy Letter 01–20, *Third Party Foam Concentration Analysis*.<sup>5</sup>

#### Hydrostatic Testing for Inert Gas Cylinders

This proposed rule would change the interval for hydrostatic testing of all inert gas fire extinguishing system bottles in 46 CFR 147.66 from at least once in every 5 or 10 years (depending on bottle size) to once in every 12 years. This change would align the hydrostatic testing intervals for inert gas fire extinguishing system bottles with the intervals for carbon dioxide and halon fire extinguishing system bottles in 46 CFR 147.65 and 147.67, respectively. The Coast Guard is not aware of any data or studies that demonstrate the need for a shorter hydrostatic testing interval for inert gas extinguishing system bottles compared to carbon dioxide extinguishing system bottles. Further, this proposed change would reduce servicing costs for vessel owners or operators without increasing risk.

<sup>5</sup> U.S. Coast Guard, CG–ENG Policy Letter 01–20 *Third Party Foam Concentration Analysis*, June 23, 2020, <https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/5ps/Design%20and%20Engineering%20Standards/Life%20Saving%20and%20Fire%20Safety/Docs/CG-ENG%20PL%2001-20%20Foam%20Testing.pdf?ver=2020-07-09-142932-267>.

<sup>1</sup> U.S. Coast Guard, Marine Safety Manual Volume II: Materiel Inspection, “CH–2 to Marine Safety Manual Volume II, COMDTINST M16000.7B,” <https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CSNCOE/USCG%20Marine%20Safety%20Manual%20Volume%20II%20-%20Material%20Inspection.pdf>.

<sup>2</sup> Resolution MSC.308(88), “Amendments to the International Convention for the Safety of Life at

### *MODU Lifesaving Appliance Release Mechanism*

Per 46 CFR 108.570(c)(3), single fall lifeboats, which also serve as rescue boats on board MODUs and OCS facilities, are required to have an automatic release mechanism approved under approval series 46 CFR subpart 160.170. This proposed rule would add an option in 46 CFR 108.570(c)(3) to allow lifeboats also serving as a rescue boat to have lifeboat release mechanisms instead of rescue boat release mechanisms. This would allow owners and operators of MODUs and OCS facilities the choice to select from a broader range of equipment options available to non-SOLAS lifeboat and rescue boat-releasing mechanisms. This change would align this regulation with a similar regulation in 46 CFR 199.160(d)(2). There is no reason to treat lifeboats that also serve as rescue boats on offshore units differently than those units installed on board ships.

### *Nonmetallic Piping*

Title 46 CFR 116.405(f) requires that nonmetallic (that is, plastic) piping in concealed spaces of small passenger vessels subject to 46 CFR subchapter K be tested under the American Society for Testing and Materials (ASTM) E84 standard and meet a certain set of performance criteria. However, plastic piping is already required to be approved by the Coast Guard under 46 CFR subpart 164.141. The testing standard to gain this approval is a different test standard than the ASTM E84 test. Requiring two different testing standards is redundant and provides no additional benefits, adds confusion by preventing approved piping from being used, and increases the cost for pipe manufacturers and purchasers. The Coast Guard is proposing to remove the requirement to test nonmetallic pipes to ASTM E84 and clarify that if nonmetallic piping is used in concealed spaces, it must be approved under approval series 46 CFR 164.141.

### *Pressure-Vacuum Relief Valves*

Pressure-vacuum relief valves for tank vessels required in 46 CFR 32.20–5 and 39.2011(b) must be Coast Guard-approved to approval series 46 CFR subpart 162.017. Currently, in 46 CFR subpart 162.017, International Organization for Standardization (ISO) standard 15364 is incorporated by reference and is an alternative standard to the prescriptive requirements in 46 CFR subpart 162.017 for approval of pressure-vacuum relief valves. This proposed rule would amend 46 CFR 39.2011(b) to allow ISO 15364 valves, or

valves otherwise accepted by foreign-flag Administrations, as acceptable alternatives to the type-approval requirements of 46 CFR subpart 162.017. This proposed rule would better align our regulations for pressure-vacuum relief valves with SOLAS requirements. This proposed rule would also amend 46 CFR 162.017–3(g) to replace the words “overhauling and repairs” with “maintenance,” 46 CFR 162.017–3(n) to correct an editorial error, and 46 CFR 162.017–6 to clarify the application process.

### *Resins for Lifeboats and Rescue Boats*

Manufacturers of fiber-reinforced plastic survival craft and rescue boats who seek Coast Guard equipment approval are required to use resin accepted in 46 CFR subpart 164.120. This rule proposes to revise the regulations for survival craft and rescue boats (46 CFR subparts 160.135 and 160.156) to incorporate by reference MSC/Circular 1006, “Guidelines on Fire Test Procedures for Acceptance of Fire-Retardant Materials for the Construction of Lifeboats,”<sup>6</sup> an international standard for fire retardant resins that is already incorporated by reference in 46 CFR subpart 164.120. This proposed rule would delete 46 CFR subpart 164.120 and add a review of fire-retardant resins in 46 CFR subparts 160.135 and 160.156. The Coast Guard would no longer maintain a list of accepted resins. Currently, there are 15 standards (4 ISO and 11 ASTM) incorporated by reference in subpart 164.120 that are out of date. There is no indication that using the standards for resins specified in the regulations, instead of other standards, is necessary for safely constructing fiberglass-reinforced plastic survival craft and rescue boats.

### *Self-Contained Breathing Apparatus*

All vessels regulated in 46 CFR subchapters D, K, I, I–A, L, R, and U are required to carry an SCBA as a part of a firefighting or emergency outfit. Currently, the regulations require these SCBAs to hold a MSHA approval. However, MSHA has not approved this equipment since 1995, when the Public Health Service (PHS) published the “Respiratory Protective Devices” final rule (60 FR 30336, June 8, 1995). This proposed rule would delete the obsolete requirement for SCBAs on inspected vessels to be approved by MSHA and would align title 46 of the CFR with MSHA and PHS regulations.

<sup>6</sup> MSC/Circular 1006, “Guidelines on Fire Test Procedures for Acceptance of Fire-Retardant Materials for the Construction of Lifeboats” is available to view in the docket (USCG–2020–0519).

### *Stairwell Structural Fire Protection and Means of Egress*

The “Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment” rule added an option for inspected domestic vessels to meet either the structural fire protection requirements of SOLAS Chapter II–2, or the structural protection requirements found in the subchapter under which the vessel is inspected. The 2016 rule was intended to allow any U.S.-flagged vessel to be built to the requirements in SOLAS Chapter II–2, even if it is not certificated to SOLAS, which allows greater flexibility in design. However, the Coast Guard believes the 2016 rule used ambiguous language regarding the means of egress requirements for 46 CFR subchapter K vessels that used the SOLAS Chapter II–2 option for structural fire protection. This proposed rule would add language to clarify the means of egress requirements if subchapter K vessels use the SOLAS Chapter II–2 structural fire protection requirements for a design basis. This proposed rule would also harmonize stairways and ladders that meet SOLAS’s structural and nonstructural fire protection requirements with U.S. design, structural, and nonstructural fire protection requirements.

### *Winches and Davits*

This proposed rule would remove prescriptive design requirements of safety devices for lifeboat, rescue boat, and liferaft winches, and align the safety device requirement with the LSA Code. Currently, 46 CFR 160.115–7(b)(6)(vi) requires that winches for survival craft or rescue boats have a limit switch on each davit arm to prevent damage to the launching equipment. However, requiring one limit switch for each davit arm is inconsistent with the IMO’s LSA Code. The Coast Guard is proposing to remove this prescriptive design requirement and align the safety device requirement with the LSA Code. This proposed rule would allow launching appliance manufacturers to use different technologies to achieve the safety performance criteria of the LSA Code.

## **VI. Incorporation by Reference**

Material proposed for IBR appears in 46 CFR 39.1005, 39.2011, 160.135–5, 160.135–7, 160.156–5, and 160.156–7. The standards are summarized in section VIII. L. Technical Standards, of this preamble. For information about how to view this material, see the **ADDRESSES** section of this preamble. Copies of the material are reasonably available from the sources listed in

§§ 39.1005, 160.135–5, and 160.156–5. The following standards have already been approved for the locations where they appear in the proposed amendatory text and no change to the incorporation by reference is proposed: SOLAS, Chapter II–2, NFPA 2001, and FTP Code. Before publishing a final rule, we will submit this material to the Director of the Federal Register for approval of the IBR.

**VII. Regulatory Analyses**

We developed this proposed rule after considering numerous statutes and Executive orders related to rulemaking. A summary of our analyses based on these statutes or Executive orders follows.

*A. Regulatory Planning and Review*

Executive Orders 12866 (Regulatory Planning and Review) and 13563 (Improving Regulation and Regulatory Review) direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory

approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying costs and benefits, reducing costs, harmonizing rules, and promoting flexibility.

The Office of Management and Budget (OMB) has not designated this proposed rule a significant regulatory action under section 3(f) of Executive Order 12866. Accordingly, OMB has not reviewed this proposed rule. The Coast Guard estimates this proposed rule would have no additional costs. The Coast Guard estimates this proposed rule would result in additional cost savings to industry with no reduction or change in safety benefits. Details on the estimated cost savings of this proposed rule can be found in the regulatory analysis that follows.

The Coast Guard is proposing to revise the requirements in 33 CFR subchapter NN, and 46 CFR subchapters A, D, F, H, I, I–A, K, L, N, Q, R, T, U,

and W. These subchapters are associated with approving, carrying, and maintaining certain safety equipment required on board vessels, offshore units, deepwater ports, and recreational vessels. These proposed revisions would eliminate outdated requirements, update standards incorporated by reference, and reduce the frequency of inspection and testing requirements for foam fire-extinguishing systems, inert gas cylinders, and lifeboat wire falls. Additionally, this proposed rule would remove obsolete sections and align conflicting sections with codes associated with the SOLAS of 1974 and the SOLAS Protocol of 1978: articles, annexes, and certificates. We expect the cost savings of this proposed rule to be associated with three items: hydrostatic testing of inert gas bottles, testing firefighting foam concentrates for fixed foam fire extinguishing systems, and replacing the fall wire ropes associated with lifeboats. Table 2 provides a summary of the impacts of the proposed rule.

TABLE 2—SUMMARY OF IMPACTS OF THE PROPOSED RULE

Category	Summary
Applicability .....	Update 33 CFR, chapter I, subchapter NN, and 46 CFR, chapter I, subchapters A, D, F, H, I, I–A, K, L, N, Q, R, T, U, and W.
Affected Population .....	581 U.S.-flagged vessels: <ul style="list-style-type: none"> <li>• 132 carrying foam fire systems,</li> <li>• 14 carrying inert gas bottles, and</li> <li>• 435 carrying lifeboats.</li> </ul>
Costs .....	There would be no costs to industry or the Federal Government because this proposed rule would reduce burden and instead generate cost savings.
Benefits .....	Provide flexibility by offering third-party testing options for certain safety equipment. Reduce confusion and administrative burdens by (1) removing obsolete regulations and IBRs, and outdated references, and (2) updating standards to align with SOLAS, related regulations, and current industry practice.
Cost savings (7% discount rate) * .....	Cost savings to industry: 10-year: \$2,493,189. Annualized: \$354,974.

\* Totals may not sum due to independent rounding.

**Regulatory Changes of the Proposed Rule by CFR Subparts and Sections**

Table 3 presents proposed regulatory changes with an assessment of the

economic impact of the changes proposed to titles 33 and 46 of the CFR. The table shows the category of each proposed change, proposed affected

CFR subparts and sections and descriptions of their changes, and whether there would be cost savings or no economic impact from the changes.

TABLE 3—REGULATORY CHANGES OF THE PROPOSED RULE BY CFR SUBPARTS AND SECTIONS

Equipment involved or type of change	Proposed changes	Affected CFR subparts and sections	Economic impact
CFR References and Changes to IBRs.	1. Deletes references to outdated IBRs and corrects improper IBRs in regulation text. 2. Corrects improper CFR references.	46 CFR 115.810(b)(1), 46 CFR 118.500(d), 46 CFR 160.171–3, 46 CFR 160.174–3, 46 CFR 161.002–18(a)(3), 46 CFR 161.002–19(a)(3), 46 CFR 161.002–19(b)(3), 46 CFR 162.017–0, 46 CFR 164.106–3(a), 46 CFR 164.137–2(b)(2), 46 CFR 164.137–3(a), 46 CFR 164.138–2(a), 46 CFR 164.138–2(b)(2), 46 CFR 164.138–3(a), 46 CFR 164.139–2(a), 46 CFR 164.139–2(b)(2), 46 CFR 164.139–3(a).	No impact; editorial.
Editorial .....	1. Clarifies language ..... 2. Corrects typographical errors 3. Deletes repetitive words and wording.	33 CFR 149.410, 46 CFR 56.60–25(a)(4), 46 CFR 108.495, 46 CFR 162.017, 46 CFR 181.500(b).	No impact; editorial.

TABLE 3—REGULATORY CHANGES OF THE PROPOSED RULE BY CFR SUBPARTS AND SECTIONS—Continued

Equipment involved or type of change	Proposed changes	Affected CFR subparts and sections	Economic impact
Electronic Submissions .....	<ol style="list-style-type: none"> <li>1. Adds option to submit equipment approval materials electronically.</li> <li>2. Removes requirement for multiple copies of submissions for equipment approval, if submitted electronically.</li> </ol>	46 CFR 2.75–10(b), 46 CFR 159.001–5, 46 CFR 160.115–9(b), 46 CFR 160.115–13(g)(2), 46 CFR 160.132–9(b), 46 CFR 160.132–13(g)(2), 46 CFR 160.133–9(b), 46 CFR 160.133–13(g)(2), 46 CFR 160.135–9(b), 46 CFR 160.135–13(g)(2), 46 CFR 160.156–9(b), 46 CFR 160.156–13(g)(2), 46 CFR 160.170–9(b), 46 CFR 160.170–13(g)(2), 46 CFR 161.002–18(a), 46 CFR 161.002–19(a)(2), 46 CFR 161.012–5(a), 46 CFR 161.012–5(b)(2), 46 CFR 161.013–11(c)(1), 46 CFR 161.013–17, 46 CFR 162.050–15(a), 46 CFR 162.060–40(b), 46 CFR 164.009–9(a), 46 CFR 164.018–7(a), 46 CFR 164.018–7(b)(2).	No impact; aligns with current industry practice. Over the past 5 years, the Coast Guard has received 99.2 percent of the submissions electronically. So, this proposed rule would codify the use of electronic submission.
End-for-Ending Launching Appliance Falls.	<ol style="list-style-type: none"> <li>1. Removes requirement for “end-for-ending” for launching appliance falls, to align with SOLAS.</li> <li>2. Revises interval for launching appliance falls replacement to 5 years.</li> </ol>	46 CFR 109.301(j), 46 CFR 199.190(j) .....	Cost savings; reduces testing burdens by allowing owners and operators to replace the falls every 5 years without the end-for-ending requirement.
EPIRB .....	Aligns Coast Guard acceptance of EPIRBs in 46 CFR with Federal Communications Commission (FCC) requirements in 47 CFR and standards established by the Space System for the Search of Vessels in Distress (COSPAS), Search and Rescue Satellite-Aided Tracking (SARSAT), and RTCM.	46 CFR 161.011–1, 46 CFR 161.011–5, 46 CFR 161.011–10 .....	No impact; aligns with current industry practice.
Equipment Deletion .....	Deletes pilot hoist approval series, § 163.002, and associated references in various subchapters.	46 CFR 32.90–1(h), 46 CFR 77.40–1(h), 46 CFR 96.40–1(h), 46 CFR 108.719(h), 46 CFR 163.002, 46 CFR 195.40–1(h).	No impact; aligns with current industry practice.
Fire Protection and Other Conforming Amendments.	<ol style="list-style-type: none"> <li>1. Corrects fire extinguisher ratings.</li> <li>2. Clarifies fire extinguisher quantities.</li> <li>3. Adds option to allow use of nationally recognized testing laboratory (NRTL) listed and labeled fire detection systems as excess equipment for MODUs.</li> <li>4. Adds grandfathering provision for fire extinguishers for public nautical school ships and sailing school ships.</li> </ol>	46 CFR 34.10–90(a)(3), 46 CFR 34.50–10(a), 46 CFR 76.50–10(a), 46 CFR 95.50–10(a), 46 CFR 105.14(a), 46 CFR 108.103, 46 CFR 108.489(a)(3), 46 CFR 118.500(c), 46 CFR 167.45–40, 46 CFR 167.45–65, 46 CFR 167.45–70, 46 CFR 167.45–71, 46 CFR 167.45–75, 46 CFR 169.567(a), 46 CFR 169.568.	No impact; editorial and aligns with current industry practice.
Foam Testing .....	<ol style="list-style-type: none"> <li>1. Adds option for third-party testing for foam concentrates.</li> <li>2. Aligns testing processes with requirements in SOLAS and Coast Guard Office of Design and Engineering Standards (CG-ENG) Policy Letter 01–20, Third Party Foam Concentration Analysis.</li> </ol>	46 CFR 31.10–18(c), 46 CFR 107.235(b)(4) .....	Cost savings; reduces testing burdens via the use of other test alternatives from the third party.
Hydrostatic Testing for Inert Gas Cylinders.	Revises hydrostatic testing requirements for inert gas bottles to every 12 years.	46 CFR 147.66(a), 46 CFR 147.66(c) .....	Cost savings; changes the interval for hydrostatic testing for all vessels with inert gas bottles for fire protection systems from at least once in every 5 years for large bottles and 10 years for small bottles to once in every 12 years for all bottle types.
MODU Lifesaving Appliance Release Mechanism.	<ol style="list-style-type: none"> <li>1. Adds an option in 46 CFR subchapter I–A to allow lifeboats also serving as a rescue boat to have lifeboat release mechanisms instead of rescue boat release mechanisms.</li> <li>2. Aligns this regulation with a similar regulation in 46 CFR subchapter W.</li> </ol>	46 CFR 108.570(c)(3) .....	No impact; editorial.
Nonmetallic Piping .....	Removes redundant fire testing requirements for nonmetallic piping in 46 CFR subchapter K.	46 CFR 116.405(f) .....	No impact; editorial.

TABLE 3—REGULATORY CHANGES OF THE PROPOSED RULE BY CFR SUBPARTS AND SECTIONS—Continued

Equipment involved or type of change	Proposed changes	Affected CFR subparts and sections	Economic impact
Pressure-Vacuum Relief Valves.	1. Revises requirements for approving pressure-vacuum relief valves. 2. Updates IBR edition.	46 CFR 39.1005, 46 CFR 39.2011(b)(1), 46 CFR 162.017–1, 46 CFR 162.017–2, 46 CFR 162.017–3(n), 46 CFR 162.017–3(r), 46 CFR 162.017–6.	No impact; editorial and aligns with current industry practice.
Resins for Lifeboats and Rescue Boats.	Removes approval series for fire-retardant resins and incorporates approval of these resins into approvals for lifeboats and rescue boats.	46 CFR 160.135–5(d), 46 CFR 160.135–7(b)(3)(iv)(A), 46 CFR 160.156–5(d), 46 CFR 160.156–7(b)(3)(iv)(A), 46 CFR 164.120.	No impact; editorial.
Self-Contained Breathing Apparatus.	Removes obsolete requirement for MSHA approval for SCBAs.	46 CFR 35.30–20(c)(1), 46 CFR 77.35–5(b), 46 CFR 96.35–5(b), 46 CFR 108.497(a), 46 CFR 132.365(b)(1), 46 CFR 167.45–60(a), 46 CFR 169.717(a)(1).	No impact; editorial.
Stairwell Structural Fire Protection and Means of Egress.	Clarifies the stairwell structural fire protection and means of egress requirements for 46 CFR subchapter K vessels.	46 CFR 116.400(c)	No impact; editorial.
Winches and Davits	1. Removes prescriptive design requirements for winch and davit safety devices under the LSA Code. 2. Aligns the safety device requirement with the LSA Code.	46 CFR 160.115–7(b)(6)(vi)	No impact; editorial.

Affected Population

For this proposed rule, we obtained the affected population of vessels and the items they carry primarily from our Marine Information for Safety and Law Enforcement (MISLE) database and from supplemental information provided to us by subject matter experts (SMEs) in CG–ENG. The affected population is the total number of U.S.-flagged vessels carrying foam fire extinguishing systems, lifeboat wire falls, and inert gas bottles for extinguishing fires. We estimate the total number of affected vessels as 581, made up of 132 vessels carrying foam fire systems, 14 vessels carrying inert gas bottles, and 435 vessels carrying lifeboats. Vessels can be carrying more than one type of equipment at a time, so there is some overlap in the number of vessels that, for example, carry a foam fire extinguishing system and lifeboats. For the purposes of our cost analysis, however, we assume there is no overlap.

Cost Analysis

This proposed rule would have a cost savings associated with reducing the

maintenance intervals for hydrostatic testing of inert gas bottles and lifeboat wire falls, and expanding testing parties for fixed-foam fire extinguishing systems.

Regulatory Baseline

To obtain the cost savings associated with this proposed rule, we first calculated the current costs to mariners for firefighting foam testing, hydrostatic testing of inert gas bottles, and lifeboat wire falls. Then, we compared the current and the proposed costs to obtain the cost savings. The baseline costs for these items are as follows:

Foam Testing

Owners and operators of vessels that carry foam fire extinguishing systems are required in 46 CFR 31.10–18(c) and 46 CFR 107.235(b)(4) to submit a representative sample of firefighting foam concentrate, if carried, to the manufacturer to test for specific properties such as gravity, pH, percentage of water dilution, and solid content. Currently, the frequency of this testing is twice in a 5-year period. From

information obtained in MISLE and discussions with SMEs, there are a total of 132 vessels carrying foam fire systems in our affected population because each vessel carries 1 foam fire extinguishing system on board.

Based on information we obtained from a Coast Guard-approved third-party company that tests foam fire extinguishing systems and from consultations with SMEs, the cost to perform the test is about \$150, which includes the cost for a vessel owner or operator to submit a foam sample to a manufacturer for testing. We estimate the total annual undiscounted cost for foam testing to be approximately \$7,920. We calculate this by assuming that in any given year, 40 percent (or 2 divided by 5 to represent the testing interval of 2 tests every 5 years) of the 132 foam systems require testing. We then multiply the result (132 × 0.40) by the cost per test (\$150). Table 4 presents the baseline total undiscounted cost for fire extinguishing foam testing.

TABLE 4—BASELINE COST FOR FOAM TESTING

Period	Foam testing population for each period (A)	Cost per test (B)	Total cost (C) = (A) × (B)
1	132 × (0.40)	\$150	\$7,920
2	132 × (0.40)	150	7,920
3	132 × (0.40)	150	7,920
4	132 × (0.40)	150	7,920
5	132 × (0.40)	150	7,920
6	132 × (0.40)	150	7,920
7	132 × (0.40)	150	7,920
8	132 × (0.40)	150	7,920

TABLE 4—BASELINE COST FOR FOAM TESTING—Continued

Period	Foam testing population for each period (A)	Cost per test (B)	Total cost (C) = (A) × (B)
9 .....	132 × (0.40)	150	7,920
10 .....	132 × (0.40)	150	7,920
Total .....	.....	.....	79,200

**Note:** Totals may not sum due to independent rounding.  
\* This test occurs twice in a 5-year period.

**Hydrostatic Testing for Inert Gas Cylinders**

Under 46 CFR subpart 147.66, vessel owners or operators for vessels that carry inert gas fire extinguishing bottles must have the bottles hydrostatically tested at least once every 10 years for bottles with an equivalent water capacity of 125 pounds or less, or 5 years for larger bottles with an equivalent water capacity of greater than 125 pounds (the water capacity of a bottle is used to obtain the volumetric size of the bottle for testing purposes because testing cannot be performed when the bottle contains an inert gas). This is necessary to ensure the integrity of the bottles. The Coast Guard contacted a company that hydrostatically tests inert gas bottles to

obtain the costs associated with testing and discharging these bottles, recharging the bottles with an inert gas, and delivering the bottles to a vessel when the testing is completed.<sup>7</sup>

The cost to discharge and test the bottle, rebuild the valve on the bottle, and recharge the bottle with an inert gas is about \$1,220—a lump-sum amount provided to us by the testing company. The pickup and delivery costs are about \$600. The company we contacted for this cost estimate provided a lump-sum figure, which includes the time it takes to drive to a vessel, disconnect the bottles, load the bottles onto the delivery vehicle, and transport the bottles to the testing facility and back to the vessel.

Therefore, the total cost a testing company charges a vessel owner or

operator is about \$1,820 (\$1,220 + \$600) to hydrostatically test inert gas bottles. Based on MISLE data and discussions with SMEs, the total number of inert gas bottles for the 14 vessels that have inert gas bottles on board is approximately 169, or approximately 12 bottles per vessel. As a result, the testing cost once in a 10-year period is about \$307,580 (169 bottles × \$1,820). We estimate the total annual undiscounted cost for inert gas testing to be approximately \$30,758. We calculate this by assuming that 10 percent (or 1 divided by 10 to represent the testing interval of 1 test every 10 years) of the 169 inert gas cylinders require testing over a 10-year period. We then multiply the result (169 × 0.10) by the cost per test (\$1,820). Table 5 presents the baseline total undiscounted cost for inert gas cylinders.

TABLE 5—BASELINE COST FOR INERT GAS CYLINDERS

Period	Inert gas population for each period (A)	Cost per test (B)	Total cost (C) = (A) × (B)
1 .....	169 × (0.10)	\$1,820	\$30,758
2 .....	169 × (0.10)	1,820	30,758
3 .....	169 × (0.10)	1,820	30,758
4 .....	169 × (0.10)	1,820	30,758
5 .....	169 × (0.10)	1,820	30,758
6 .....	169 × (0.10)	1,820	30,758
7 .....	169 × (0.10)	1,820	30,758
8 .....	169 × (0.10)	1,820	30,758
9 .....	169 × (0.10)	1,820	30,758
10 .....	169 × (0.10)	1,820	30,758
Total .....	.....	.....	307,580

**Note:** Totals may not sum due to independent rounding.  
\* This test occurs once every 10 years.

**End-for-Ending Launching Appliance Falls**

U.S.-flagged vessel owners and operators are required to replace lifeboat launching appliance falls every 5 years according to 46 CFR 109.301 and

199.190. According to current regulations, these falls (wire ropes) must be turned end-for-end not more than 30 months, or 2.5 years, after installation during a 5-year period (the phrase “turned end-for-end” means rotating the

wire ropes so the ropes wear evenly). There are two falls for each lifeboat and there are two lifeboats per vessel. Using the MISLE database, we identified 435 U.S.-flagged vessels that carry lifeboats. Each affected vessel has 2 lifeboats on

<sup>7</sup> An inert gas is a gas that has low chemical reactivity under certain conditions, which makes it suitable for firefighting purposes either alone or

with other gases. Inert gases extinguish fires by displacing oxygen in the air. The field of chemistry generally recognizes that six (naturally occurring)

gases make up the list of inert gases: helium, argon, neon, krypton, xenon, and radon. See <https://www.Britannica.com/science/noble-gas>.

board; therefore, we estimate there are 870 lifeboats that have fall wire ropes.

For cost savings purposes, we assume that each lifeboat has two fall wire ropes. The cost to turn two falls end-for-end on each launching appliance is about \$2,000, based on information provided to us from a company that

performs this function. Because there are 2 lifeboats per vessel, the population of lifeboat wire rope falls is 870. The total annual cost to turn falls end-for-end 2.5 years after installation for 870 lifeboat wire falls is about \$348,000. We calculate this by assuming that in any given year 20 percent (or 2 divided by

10 to represent the turning interval of 1 turn every 5 years) of the 870 lifeboat wire falls require turning. We then multiply the result (870 × 0.20) by the cost per turning (\$2,000). Table 6 presents the baseline total undiscounted cost for lifeboat wire falls.

TABLE 6—BASELINE COST FOR LIFEBOAT WIRE FALLS

Period	Lifeboat wire falls population for each period (A)	Cost per turning (B)	Total cost (C) = (A) × (B)
1	870 × (0.20)	\$2,000	\$348,000
2	870 × (0.20)	2,000	348,000
3	870 × (0.20)	2,000	348,000
4	870 × (0.20)	2,000	348,000
5	870 × (0.20)	2,000	348,000
6	870 × (0.20)	2,000	348,000
7	870 × (0.20)	2,000	348,000
8	870 × (0.20)	2,000	348,000
9	870 × (0.20)	2,000	348,000
10	870 × (0.20)	2,000	348,000
Total			3,480,000

Note: Totals may not sum due to independent rounding.  
\* This test occurs twice in a 5-year period.

We estimate the baseline total undiscounted cost to owners and

operators of U.S.-flagged vessels for all three items to be about \$3,866,780

(\$79,200 + \$3,480,000 + \$307,580) (see table 7).

TABLE 7—SUMMARY OF BASELINE COSTS ASSOCIATED WITH EACH ITEM

Period	Foam testing	Lifeboat wire falls	Inert gas testing	Undiscounted cost
1	\$7,920	\$348,000	\$30,758	\$386,678
2	7,920	348,000	30,758	386,678
3	7,920	348,000	30,758	386,678
4	7,920	348,000	30,758	386,678
5	7,920	348,000	30,758	386,678
6	7,920	348,000	30,758	386,678
7	7,920	348,000	30,758	386,678
8	7,920	348,000	30,758	386,678
9	7,920	348,000	30,758	386,678
10	7,920	3,348,000	30,758	386,678
Total	79,200	3,480,000	307,580	3,866,780

Note: Totals may not sum due to independent rounding.

This proposed rule would generate cost savings as follows:

Cost Savings

The cost savings would originate from eliminating outdated requirements, reducing inspection and testing requirements, and updating standards. The cost savings of this proposed rule are associated with three items: testing concentrates for fixed foam fire systems, hydrostatic testing for inert gas bottles, and eliminating the end-for-ending requirement for launching appliance

falls (wire ropes) when replaced at an interval of 5 years.

Foam Testing

There are numerous laboratories, other than those owned by foam manufacturers, that can test foam concentrates used for firefighting. Allowing a Coast Guard-accepted independent laboratory to test foam concentrates provides a similar level of safety to the current requirements and may be less burdensome to the vessel owners or operators. Additionally, the

use of a third party to test the properties of the firefighting foam would allow for increased availability in the number of companies who can test firefighting foam systems.

In this proposed rule, a Coast Guard-accepted independent laboratory, in place of a manufacturer, would be permitted to perform the foam firefighting concentrates test. We estimate a charge for this service would be about \$115 per system.<sup>8</sup> This would result in a total annual cost of \$6,072. We calculate this by assuming that, in

<sup>8</sup> This price was obtained from the industry.

any given year, 40 percent (or 2 divided by 5 to represent the testing interval of 2 tests every 5 years) of the 132 foam systems require testing. We then multiply the result (132 × 0.40) by the projected cost per test (\$115) (see table 8).

TABLE 8—PROPOSED COST CHANGE FOR FOAM TESTING

Period	Foam testing population for each period (A)	Cost per test (B)	Total cost (C) = (A) × (B)
1 .....	132 × (0.40)	\$115	\$6,072
2 .....	132 × (0.40)	115	6,072
3 .....	132 × (0.40)	115	6,072
4 .....	132 × (0.40)	115	6,072
5 .....	132 × (0.40)	115	6,072
6 .....	132 × (0.40)	115	6,072
7 .....	132 × (0.40)	115	6,072
8 .....	132 × (0.40)	115	6,072
9 .....	132 × (0.40)	115	6,072
10 .....	132 × (0.40)	115	6,072
Total .....	.....	.....	60,720

**Note:** Totals may not sum due to independent rounding.  
\* This test occurs twice in a 5-year period.

We compared the current unit cost for firefighting foam testing of \$150 when performed by a manufacturer with the projected unit cost of \$115 when performed by a third party. We estimate the unit cost savings to be \$35 (\$150—\$115). As we presented earlier in this analysis, the baseline and the projected costs for firefighting foam testing are \$7,920 and \$6,072, respectively (see tables 4 and 7). Therefore, the cost savings per year would be \$1,848 (\$7,920—\$6,072), and the total cost savings for the firefighting foam testing part of this proposed rule would be about \$18,480 (\$79,200—\$60,720), undiscounted (see table 9).

TABLE 9—NET COST SAVINGS FOR FOAM TESTING

Period	Baseline cost* (A)	Proposed cost** (B)	Total cost savings (C) = (A) – (B)
1 .....	\$7,920	\$6,072	\$1,848
2 .....	7,920	6,072	1,848
3 .....	7,920	6,072	1,848
4 .....	7,920	6,072	1,848
5 .....	7,920	6,072	1,848
6 .....	7,920	6,072	1,848
7 .....	7,920	6,072	1,848
8 .....	7,920	6,072	1,848
9 .....	7,920	6,072	1,848
10 .....	7,920	6,072	1,848
Total .....	79,200	60,720	18,480

**Note:** Totals may not sum due to independent rounding.  
\* Table 4  
\*\* Table 8

Hydrostatic Testing for Inert Gas Cylinders

We are proposing to change the hydrostatic testing interval of all inert gas firefighting extinguishing system bottles from the current requirement of once every 10 years to at least once every 12 years, which aligns with the hydrostatic testing intervals for carbon dioxide and halon firefighting extinguishing system bottles in 46 CFR 147.65.

The cost savings would be from less-frequent testing of inert gas bottles. For

vessels with inert gas bottles less than 125 pounds, the test interval would change from at least once in every 10 years to at least once in every 12 years. For large bottles with inert gas bottles equal or greater than 125 pounds, the test interval would change from once in every 5 years to once in every 12 years. We found no bottles that had a capacity of more than 125 pounds of equivalent water capacity in our population; therefore, for the purpose of this analysis, the relevant change in testing interval is from once every 10 to once

every 12 years. We estimate the total annual cost of hydrostatic testing for inert gas cylinders would be approximately \$25,632. We calculate this by assuming that in any given year 8.3 percent (or 1 divided by 12 to represent the testing interval of 1 test every 12 years) of the 169 inert gas cylinders would require testing. We then multiply the result (169 × 0.083) by the cost per test (\$1,820) (see table 10). As a result, vessel owners and operators would save \$51,260



(\$307,580 – \$256,320) in testing costs over a 10-year period (see table 11).

TABLE 10—PROPOSED COST CHANGE FOR INERT GAS CYLINDERS

Period	Inert gas population for each period (A)	Cost per test (B)	Total cost (C) = (A) × (B)
1	169 × (0.083)	\$1,820	\$25,632
2	169 × (0.083)	1,820	25,632
3	169 × (0.083)	1,820	25,632
4	169 × (0.083)	1,820	25,632
5	169 × (0.083)	1,820	25,632
6	169 × (0.083)	1,820	25,632
7	169 × (0.083)	1,820	25,632
8	169 × (0.083)	1,820	25,632
9	169 × (0.083)	1,820	25,632
10	169 × (0.083)	1,820	25,632
Total			256,320

Note: Totals may not sum due to independent rounding.

TABLE 11—NET COST SAVINGS FOR INERT GAS CYLINDERS

Period	Baseline cost * (A)	Proposed cost ** (B)	Total cost saving (C) = (A) – (B)
1	\$30,758	\$25,632	\$5,126
2	30,758	25,632	5,126
3	30,758	25,632	5,126
4	30,758	25,632	5,126
5	30,758	25,632	5,126
6	30,758	25,632	5,126
7	30,758	25,632	5,126
8	30,758	25,632	5,126
9	30,758	25,632	5,126
10	30,758	25,632	5,126
Total	307,580	256,320	51,260

Note: Totals may not sum due to independent rounding.

\* Table 5.

\*\* Table 10.

End-for-Ending Launching Appliance Falls

The Coast Guard proposes to revise the “end-for-ending” requirement for lifeboat launching appliance falls to align with SOLAS, which allows for a fall replacement interval of 5 years

without turning the wires end-for-end. Current regulations require that falls must be replaced in 5-year intervals if they are serviced in accordance with IMO Circular MSC.1/Circ.1206 (Rev.1) and MSC.402(96).

The cost saving would be from eliminating the requirement to turn the

ropes end-for-end every 2.5 years over a 10-year period of analysis. This would result in cost savings for vessel owners and operators of about \$3,480,000 for the 435 U.S.-flagged vessels that have lifeboats on board. See table 12.

TABLE 12—NET COST SAVINGS FOR LIFEBOAT WIRE FALLS

Period	Baseline cost * (A)	Proposed cost (B)	Total cost saving (C) = (A) – (B)
1	\$348,000	\$0	\$348,000
2	348,000	0	348,000
3	348,000	0	348,000
4	348,000	0	348,000
5	348,000	0	348,000
6	348,000	0	348,000
7	348,000	0	348,000
8	348,000	0	348,000
9	348,000	0	348,000

TABLE 12—NET COST SAVINGS FOR LIFEBOAT WIRE FALLS—Continued

Period	Baseline cost *	Proposed cost	Total cost saving
	(A)	(B)	(C) = (A) – (B)
10 .....	348,000	0	348,000
Total .....	3,480,000	0	3,480,000

Note: Totals may not sum due to independent rounding.  
\* Table 6.

Table 13 shows the total cost savings for owners and operators of U.S.-flagged vessels to be about \$3 million, undiscounted, over a 10-year period of

analysis. We estimate the total present value or discounted cost savings of the proposed rule over a 10-year period of analysis to be between \$2.5 and \$3

million, at 7- and 3-percent discount rates, respectively. We estimate the annualized cost savings to be about \$354,974 at each discount rate.

TABLE 13—SUMMARY OF COST SAVINGS OF THE PROPOSED RULE (10-YEAR PERIOD OF ANALYSIS, 7- AND 3-PERCENT DISCOUNT RATES)

Period	Foam testing *	Inert gas testing**	Lifeboat wire falls***	Undiscounted cost savings	7% Discount	3% Discount
1 .....	\$1,848	\$5,126	\$348,000	\$354,974	\$331,751	\$344,635
2 .....	1,848	5,126	348,000	354,974	310,048	334,597
3 .....	1,848	5,126	348,000	354,974	289,765	324,851
4 .....	1,848	5,126	348,000	354,974	270,808	315,390
5 .....	1,848	5,126	348,000	354,974	253,092	306,204
6 .....	1,848	5,126	348,000	354,974	236,534	297,285
7 .....	1,848	5,126	348,000	354,974	221,060	288,626
8 .....	1,848	5,126	348,000	354,974	206,598	280,220
9 .....	1,848	5,126	348,000	354,974	193,082	272,058
10 .....	1,848	5,126	348,000	354,974	180,451	264,134
Total .....	18,480	51,260	3,480,000	3,549,740	2,493,189	3,028,000
Annualized .....					354,974	354,974

Note: Totals may not sum due to independent rounding.  
\* Table 9.  
\*\* Table 11.  
\*\*\* Table 12.

Electronic Submission

Current regulations require manufacturers that produce marine safety equipment needing approval to mail their paper application and supporting documentation in triplicate. The requirement for submitting paper plans in triplicate allows the office reviewing them to mark the approved plans and return one copy to the submitter, retain one copy in our files, and to forward the third copy to the cognizant OCMI. It is current industry practice for manufacturers to submit their applications electronically, get them stamped electronically and distributed as described above. The Coast Guard is providing an option for submitting plans electronically. There are several places in the CFR where we are removing the “in triplicate” requirement for submissions for equipment approval if the manufacturer wishes to submit plans electronically (see the table 3 for the affected CFR sections). It is current industry practice

for manufacturers to submit their applications electronically. According to data from the Coast Guard’s Work Management System, 99.2 percent of all submissions related to applications for equipment approval were submitted electronically over the last 5 years. So, this proposed rule would add an option for manufacturers to submit their applications and type approval materials electronically to codify the current industry practice. Therefore, there would be no change in the hourly burden estimate and no impact to the information collection request.

Benefits

We expect this proposed rule would generate qualitative benefits. The proposed rule would reduce confusion and provide flexibility to industry by allowing third-party testing for certain safety equipment required on board vessels and offshore units or facilities. It would provide regulatory clarity by removing obsolete regulations, such as

the MSHA approval for SCBAs for firefighters, and through updating standards to align with SOLAS.

Alternatives

Alternative 1: No-Action Alternative

Under this alternative, the Coast Guard would retain the status quo and would not incorporate by reference industry standards into the CFR. This alternative would not align conflicting sections of the CFR with SOLAS and related regulations. Furthermore, it would not reduce the burden to industry. This alternative would not allow the Coast Guard to perform retrospective review and updates to the regulations. We rejected this alternative because it would not generate cost savings for the marine industry, nor update standards in 33 CFR chapter I or 46 CFR chapter I.

Alternative 2: Policy Over Regulation

Under this alternative, the Coast Guard would issue a NVIC or policy

letter instead of proposing changes through an NPRM. As voluntary documents, neither NVICs nor policy letters are legally enforceable by the agency. A NVIC or a policy letter would not update the CFR, and the process of obtaining an equivalency test still would be needed. The Coast Guard rejected this alternative because industry would not benefit from current references and the public would not be given the opportunity to comment on current industry practice and standards.

#### Alternative 3: Preferred Alternative

With this alternative, the Coast Guard would revise the regulations associated with 33 CFR chapter I and 46 CFR chapter I. This is the preferred alternative because it would update current references and align conflicting sections of the CFR with SOLAS and related regulations, eliminate outdated standards, and reduce inspection and testing requirements. This alternative also allows the Coast Guard to perform retrospective reviews and updates to the regulations.

This alternative would also reduce the workload for vessel owners and operators by extending testing or maintenance intervals or expanding the range of allowable testers for three items: inert gas bottles, foam fire systems, and lifeboat launching appliances falls (wire ropes). In turn, this alternative would generate cost savings for vessel owners and operators and manufacturers of marine equipment. We presented the cost saving impacts of this alternative earlier in this analysis.

#### B. Small Entities

Under the Regulatory Flexibility Act, 5 U.S.C. 601–612, we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

We expect this proposed rule to generate cost savings to vessel owners and operators who own vessels that carry lifeboats, bottles of inert gas, and foam fire systems for extinguishing fires. The cost savings would be the result of reducing the maintenance intervals for hydrostatic testing for inert gas bottles and testing and maintaining lifeboat falls (wire ropes). The cost savings associated with vessel owners and operators who own vessels that carry foam fire systems for extinguishing fires

would be from allowing a third party to test the firefighting foam concentrates.

Using the Coast Guard’s MISLE database, we found this proposed rule would affect 390 companies that own 531 distinct vessels. Of the 390 companies, 235 companies did not have company names in our MISLE database; therefore, we assumed these 235 companies to be small entities. We found the remaining 155 companies own 296 vessels. Based on publicly available information from the online database “ReferenceUSA.gov” and other online searches of companies,<sup>9</sup> we found revenue or employee information on 74 of the 155 companies. Using the Small Business Administration’s “Table of Size Standards” and the North American Industry Classification System codes listed in the table, we identified 51 of the 74 companies to be small entities. We determined the other 23 companies were not small entities.<sup>10</sup> We did not find information on the remaining 81 companies; therefore, we assumed these companies were small entities.

Overall, we assume there are a total of 132 small entities (51 + 81) out of 155 companies for which were named in the MISLE database, or approximately 85 percent. If we add the number of small entities that we could confirm are small based on revenue or employee information (51) to the number of companies without company information (235 + 81), we assume the total number of small entities to be 367 out of the 390 companies affected by this proposed rule.

For cost savings purposes, we needed to differentiate the vessels that have different combinations of the equipment on board. MISLE’s database offers data on company names, vessels, and equipment types. From MISLE’s data and our small entity analysis, we found that there are six different combinations of equipment that would affect the savings for each vessel (see table 14). As a result, the affected small entities overlap and are not exclusive throughout this analysis.

Based on MISLE’s data and our small entity analysis discussed earlier, we determined that the number of small entities would be 367. Out of 367 small entities, we found that 68 small entities own vessels that carry only foam fire systems. As described in the regulatory analysis above, we estimate the cost savings for foam fire systems to be about

\$35 for each vessel, and we assume the foam fire systems would be tested four times during the analysis period. These small entities would save about \$952 annually per vessel (68 small entities × \$35 savings per vessel × 0.4 systems tested per year), or about \$14 per entity (\$952 ÷ 68 small entities).

Using MISLE’s data and the small entity analysis, we identified 251 small entities that own vessels carrying lifeboats that have fall wire ropes. Each small entity would save about \$800 annually per vessel it owns (0.2 turns per year × \$2,000 cost per turn × 2 lifeboats per vessel).

Based on MISLE’s database, we found that only eight small entities own vessels carrying only inert gas bottles; there are 58 inert gas bottles on these vessels.<sup>11</sup> As presented in the regulatory analysis above, the annual cost savings on inert gas tests would be \$30 [((\$1,820 (cost savings per inert gas test) ÷ 10 years – \$1,820 (cost savings per inert gas test) ÷ 12 years) = \$30], and the cost savings for the 8 entities that would be \$1,740 [58 (number of inert gas bottles) × \$30 (annual cost savings per inert gas bottle)]. These 8 small entities would save, on average, about \$218 (\$1,740 ÷ 8) annually per entity per vessel.

Using MISLE’s data and the small entity analysis, we identified 36 small entities that own vessels carrying foam fire systems and lifeboats. As presented in the previous paragraphs, the annual cost savings per entity for the foam fire systems would be \$14 and the annual cost saving per entity for fall wire ropes would be \$800. Therefore, we estimate these 36 small entities would save about \$814 (\$14 + \$800) annually per entity per vessel.

Using MISLE’s data and the small entity analysis described earlier, we identified two small entities that own vessels carrying inert gas bottles and lifeboats that have fall wire ropes that need to be turned periodically. As presented in the previous paragraphs, the annual cost savings for these 2 entities that own vessels carrying inert gas bottles would be \$180 [6 (number of inert gas bottles carried on board vessels for both entities) × \$30 (annual cost savings per inert gas bottle) = \$180] and the annual cost savings for these 2 entities on fall wire ropes would be \$1,600 [2 (number of entities) × \$800 (cost saving per entity for fall wire ropes) = \$1,600]. Therefore, the annual cost savings for these 2 entities would be \$1,780 (\$180 + \$1,600) and these 2

<sup>9</sup> In addition to individual online searches of companies, the Coast Guard reviewed <https://www.manta.com/mb> to find revenue or employee information for the 74 companies.

<sup>10</sup> <https://www.sba.gov/document/support-table-size-standards>, effective December 19, 2022.

<sup>11</sup> Please note that the number of inert gas bottles carried on board vessels varies from one vessel to another depending on the size of the space protected by the fire suppression system.

small entities would save each, on average, about \$890 (\$1,780 ÷ 2).

Lastly, based on MISLE’s data and the small entity analysis we presented previously, we identified two small entities that carry all three items. The annual cost savings for these 2 entities that own vessels carrying inert gas bottles would be \$3,000 [100 (number of inert gas bottles carried on board vessels for both entities) × \$30 (annual cost

savings per inert gas bottle) = \$3,000]; the annual cost savings for these 2 entities for fall wire ropes would be \$1,600 [2 (number of entities) × \$800 (cost saving per fall wire ropes) = \$1,600]; and the annual cost savings for these 2 entities for foam fire systems would be \$28 [2 (number of entities) × \$14 (cost savings per foam fire systems) = \$28]. Therefore, the annual cost savings for these 2 entities would be

\$4,628 (\$3,000 + \$1,600 + \$28), and we estimate these 2 small entities would save, on average, about \$2,314 (\$4,628 ÷ 2 entities) annually per entity per vessel.

Table 14 shows the cost savings for small entities with each of the six different combinations of equipment described in the previous paragraphs.

TABLE 14—SUMMARY OF THE ANNUAL COST SAVINGS PER ENTITY PER VESSEL OF THE PROPOSED RULE

Item	Number of small entities (A)	Cost saving per entity per vessel (B)	Cost saving per vessel (C) = (A) × (B)
Foam Testing .....	68	\$14	\$952
Lifeboat Wire Falls .....	251	800	200,800
Inert Gas Testing .....	8	218	1,744
Foam Testing and Lifeboat Wire Falls .....	36	814	29,304
Lifeboat Wire Falls and Inert Gas Testing .....	2	890	1,780
Foam Testing, Lifeboat Wire Falls, and Inert Gas Testing .....	2	2,314	4,628
<b>Total .....</b>	<b>367</b>	<b>.....</b>	<b>239,208</b>

From these 6 different combinations, the range of the annual proposed cost savings that we estimate for small entities per vessel in this analysis is

between \$14 and \$2,314, and the total proposed annual cost savings for the small entities would be about \$239,208. Table 15 shows the cost savings per

revenue for the small entities for which we had revenue information.

TABLE 15—DISTRIBUTION OF REVENUE IMPACTS

Percent of revenue impact	Average annual impact per vessel					Small entities with known revenue
<1% .....	Foam Testing .....	Lifeboat Wire Falls	Inert Gas Testing ..	Foam Testing and Lifeboat Wire Falls.	Lifeboat Wire Falls and Inert Gas Testing.	51
Cost Savings per Vessel.	\$14 .....	\$800 .....	\$218 .....	\$814 .....	\$890 .....	.....

Using MISLE’s data, we found that 51 small entities, where we found revenue and employee information, own 92 vessels. Therefore, each small entity owns, on average, two vessels. Multiplying the cost savings per entity per vessel (see table 15) by the number of vessels owned by each entity or 2, yielded the following cost savings per entity: \$28 for foam testing (\$14 × 2 vessels per entity = \$28); \$1,600 for lifeboat wire falls (\$800 × 2 vessels per entity = \$1,600); \$436 for inert gas testing (\$218 × 2 vessels per entity = \$436); \$1,628 for foam testing and lifeboats wire falls (\$814 × 2 vessels per entity = \$1,628); and \$1,780 for lifeboat wire falls and inert gas testing (\$890 × 2 vessels per entity = \$1,780). For each of the 51 small entities with known revenue, the average annual cost savings per equipment type per small entity would be less than 1 percent of annual

revenue. Based on this analysis, we found that 100 percent of the small entities with known revenues that would be impacted by this proposed rule (all 51 entities) would have a cost savings that is less than 1 percent of their annual revenue. The Coast Guard’s economic analysis concluded that these changes would generate cost savings and would not impose a burden on any entities affected by this proposed rule. Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities. If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this proposed rule would have a significant economic impact on it, please submit a comment to the docket at the address listed in the ADDRESSES section of this preamble. In

your comment, explain why you think it qualifies and how and to what degree this proposed rule would economically affect it.

*C. Assistance for Small Entities*

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996, Public Law 104–121, we offer to assist small entities in understanding this proposed rule so that they can better evaluate its effects on them and participate in the rulemaking. If the proposed rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule. The Coast Guard will not retaliate against small entities that question or complain about this

proposed rule or any policy or action of the Coast Guard.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247).

#### D. Collection of Information

This proposed rule would call for no new or revised collection of information under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501-3520.

#### E. Federalism

A rule has implications for federalism under Executive Order 13132 (Federalism) if it has a substantial direct effect on States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this proposed rule under Executive Order 13132 and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132. Our analysis follows.

It is well settled that States may not regulate in categories reserved for regulation by the Coast Guard. It is also well settled that all of the categories covered in 46 U.S.C. 3306, 3703 (involving design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels) and any other category in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, are within the field foreclosed from regulation by the States. *See United States v. Locke*, 529 U.S. 89 (2000) (finding that the states are foreclosed from regulating tank vessels); *see also Ray v. Atlantic Richfield Co.*, 435 U.S. 151, 157 (1978) (State regulation is preempted where "the scheme of federal regulation may be so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it [or where] the Act of Congress may touch a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject" (citations omitted)). Because this proposed rule involves

approving, carrying, and maintaining certain safety equipment required on board vessels and offshore units or facilities, it is part of a pervasive scheme of Federal regulation that forecloses regulation by the States. Because the States may not regulate within this field, this proposed rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

While it is well settled that States may not regulate in categories in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, the Coast Guard recognizes the key role that State and local governments may have in making regulatory determinations. Additionally, for rules with federalism implications and preemptive effect, Executive Order 13132 specifically directs agencies to consult with State and local governments during the rulemaking process. If you believe this proposed rule would have implications for federalism under Executive Order 13132, please contact the person listed in the **FOR FURTHER INFORMATION** section of this preamble.

#### F. Unfunded Mandates

The Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1531-1538, requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100 million (adjusted for inflation) or more in any one year. Although this proposed rule would not result in such an expenditure, we do discuss the effects of this proposed rule elsewhere in this preamble.

#### G. Taking of Private Property

This proposed rule would not cause a taking of private property or otherwise have taking implications under Executive Order 12630 (Governmental Actions and Interference with Constitutionally Protected Property Rights).

#### H. Civil Justice Reform

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, (Civil Justice Reform), to minimize litigation, eliminate ambiguity, and reduce burden.

#### I. Protection of Children

We have analyzed this proposed rule under Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks). This proposed rule is not an

economically significant rule and would not create an environmental risk to health or risk to safety that might disproportionately affect children.

#### J. Indian Tribal Governments

This proposed rule does not have tribal implications under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

#### K. Energy Effects

We have analyzed this proposed rule under Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use). We have determined that it is not a "significant energy action" under that Order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

#### L. Technical Standards

The National Technology Transfer and Advancement Act, codified as a note to 15 U.S.C. 272, directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through OMB, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule uses the following technical and voluntary consensus standards: ASTM D975-14, IMO MSC Circ. 1006, and ISO 15364. The proposed sections that reference these standards and the locations where these standards are available are listed in §§ 39.1005, 160.135-5, 160.156-5, 160.171-3, and 160.174-3.

These standards provide internationally accepted and recognized parameters that equipment, material, etc. must meet to ensure its safety, proper usage, and preservation on the seas. The standards that would be incorporated were developed by either the ASTM, IMO, or ISO, which are voluntary consensus standard-setting organizations.

One ASTM standard would be incorporated by reference in this rulemaking: ASTM D975–14, “Standard Specification for Diesel Fuel Oils” (July 30, 2014). This ASTM specification classifies grades of diesel fuel oils suitable for various types of diesel engines. As incorporated, it would define the grade of fuel necessary to perform a test for oil resistance.

One IMO standard would be incorporated by reference in this rulemaking: IMO MSC/Circular.1006 “Guidelines on Fire Test Procedures for Acceptance of Fire-Retardant Materials for the Construction of Lifeboats” (adopted on June 8, 2001). This test procedure is used for the acceptance of fire-retardant and flame-resistant materials used for the construction of lifeboats, which are required to be fire-retardant by the International Life-saving Code.

One ISO standard would be incorporated by reference in this rulemaking: ISO 15364:2021(E) (February 2021)—“Ships and marine technology—Pressure-vacuum valves for cargo tanks and devices to prevent the passage of flame into cargo tanks.” This international standard specifies the minimum requirements for performance and testing of pressure-vacuum relief valves, with emphasis on selection of materials, internal finish, and surface requirements for pressure-vacuum relief valves installed on cargo tanks in tankers.

Consistent with incorporation by reference provisions in 1 CFR part 51, this material is reasonably available. Interested persons have access to it through their normal course of business; can purchase it from the organizations identified in 46 CFR 39.1005, 160.135–5, 160.156–5, 160.171–3, and 160.174–3; or may view a copy using the methods identified in those sections.

If you disagree with our analysis of these voluntary consensus standards or are aware of voluntary consensus standards that might apply but are not listed, please send a comment explaining your disagreement or identifying additional standards to the docket using one of the methods under **ADDRESSES**.

#### *M. Environment*

We have analyzed this proposed rule under DHS Management Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have made a preliminary determination that this

action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. A preliminary Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

This proposed rule would be categorically excluded under paragraphs L52, L54, and L57 of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 01. Paragraph L52 pertains to regulations concerning vessel safety standards; Paragraph L54 pertains to regulations which are editorial and procedural; and Paragraph L57 pertains to regulations concerning manning, documentation, admeasurement, inspection, and equipping of vessels.

This proposed rule involves revising regulations associated with the approval, carriage, and maintenance of certain safety equipment required on board vessels and offshore units or facilities. Some of these proposed revisions are editorial or procedural actions that would eliminate outdated requirements, reduce inspection and testing requirements, update standards incorporated by reference, remove obsolete sections, and align conflicting sections with codes associated with SOLAS. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

#### **List of Subjects**

##### *33 CFR Part 149*

Fire prevention, Harbors, Marine safety, Navigation (water), Occupational safety and health.

##### *46 CFR Part 2*

Marine safety, Reporting and recordkeeping requirements, Vessels.

##### *46 CFR Part 31*

Cargo vessels, Marine safety, Reporting and recordkeeping requirements.

##### *46 CFR Part 32*

Cargo vessels, Fire prevention, Marine safety, Navigation (water), Occupational safety and health, Reporting and recordkeeping requirements, Seamen.

##### *46 CFR Part 34*

Cargo vessels, Fire prevention, Marine safety.

##### *46 CFR Part 35*

Cargo vessels, Marine safety, Navigation (water), Occupational safety and health, Reporting and recordkeeping requirements, Seamen.

##### *46 CFR Part 39*

Cargo vessels, Fire prevention, Hazardous materials transportation, Incorporation by reference, Marine safety, Occupational safety and health, Reporting and recordkeeping requirements.

##### *46 CFR Part 56*

Reporting and recordkeeping requirements, Vessels.

##### *46 CFR Part 76*

Fire prevention, Marine safety, Passenger vessels.

##### *46 CFR Part 77*

Marine safety, Navigation (water), Passenger vessels.

##### *46 CFR Part 95*

Cargo vessels, Fire prevention, Marine safety.

##### *46 CFR Part 96*

Cargo vessels, Marine safety, Navigation (water).

##### *46 CFR Part 105*

Cargo vessels, Fishing vessels, Hazardous materials transportation, Marine safety, Petroleum, Seamen.

##### *46 CFR Part 107*

Marine safety, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

##### *46 CFR Part 108*

Fire prevention, Marine safety, Occupational safety and health, Oil and gas exploration, Vessels.

##### *46 CFR Part 109*

Marine safety, Occupational safety and health, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

##### *46 CFR Part 115*

Fire prevention, Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

##### *46 CFR Part 116*

Fire prevention, Incorporation by reference, Marine safety, Passenger vessels, Reporting and recordkeeping requirements, Seamen.

##### *46 CFR Part 118*

Fire prevention, Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

##### *46 CFR Part 132*

Cargo vessels, Fire prevention, Marine safety, Reporting and recordkeeping requirements.

**46 CFR Part 147**

Hazardous materials transportation, Incorporation by reference, Labeling, Marine safety, Packaging and containers, Reporting and recordkeeping requirements.

**46 CFR Part 159**

Business and industry, Laboratories, Marine safety, Reporting and recordkeeping requirements.

**46 CFR Part 160**

Incorporation by reference, Marine safety, Reporting and recordkeeping requirements.

**46 CFR Part 161**

Fire prevention, Marine safety, Reporting and recordkeeping requirements.

**46 CFR Part 162**

Fire prevention, Incorporation by reference, Marine safety, Oil pollution, Reporting and recordkeeping requirements.

**46 CFR Part 163**

Marine safety.

**46 CFR Part 164**

Fire prevention, Incorporation by reference, Marine safety, Reporting and recordkeeping requirements.

**46 CFR Part 167**

Fire prevention, Marine safety, Reporting and recordkeeping requirements, Schools, Seamen, Vessels.

**46 CFR Part 169**

Fire prevention, Marine safety, Reporting and recordkeeping requirements, Schools, Vessels.

**46 CFR Part 181**

Fire prevention, Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

**46 CFR Part 195**

Marine safety, Navigation (water), Oceanographic research vessels.

**46 CFR Part 199**

Cargo vessels, Marine safety, Oil and gas exploration, Passenger vessels, Reporting and recordkeeping requirements.

For the reasons discussed in the preamble, the Coast Guard is proposing to amend 33 CFR part 149 and 46 CFR parts 2, 31, 32, 34, 35, 39, 56, 76, 77, 95,

96, 105, 107, 108, 109, 115, 116, 118, 132, 147, 159, 160, 161, 162, 163, 164, 167, 169, 181, 195, and 199 as follows:

**Title 33—Navigation and Navigable Waters****PART 149—DEEPWATER PORTS: DESIGN, CONSTRUCTION, AND EQUIPMENT**

- 1. The authority citation for part 149 is revised to read as follows:
- Authority: 33 U.S.C. 1504, 1509; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(75).

- 2. Amend § 149.410 by revising the section heading and introductory text to read as follows:

**§ 149.410 Location and number of fire extinguishers required for manned deepwater ports constructed prior to August 22, 2016.**

Manned deepwater ports constructed before August 22, 2016, must meet the following requirements:

\* \* \* \* \*

**Title 46—Shipping****PART 2—VESSEL INSPECTIONS**

- 3. The authority citation for part 2 is revised to read as follows:

**Authority:** 33 U.S.C. 1903; 43 U.S.C. 1333; 46 U.S.C. 2103, 2110, 3306, 3316, 3703, 70034; DHS Delegation No. 00170.1, Revision No. 01.3, paragraphs (II)(70), (77), (90), (92); E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277, sec. 1–105.

- 4. Revise § 2.75–10(b) to read as follows:

**§ 2.75–10 Procedures for obtaining approvals.**

\* \* \* \* \*

(b) Unless otherwise specified, correspondence concerning approvals should be submitted electronically to *typeapproval@uscg.mil*. When plans, drawings, test data, etc., are required to be submitted by the manufacturer, the material being transmitted with the application should be clearly identified.

(c) If the manufacturer requests that hard copy stamped plans be returned to them, or if product samples must be submitted, the plans or samples must be addressed to the Commandant (CG–ENG), Attn: Office of Design and Engineering Standards, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509. When submitted, hard copy plans must be accompanied by

electronic drawings or must be submitted in triplicate.

**PART 31—INSPECTION AND CERTIFICATION**

- 5. The authority citation for part 31 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307, 3703; 46 U.S.C. Chapter 701; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(73), (92). Section 31.10–21 also issued under the authority of Sect. 4109, Pub. L. 101–380, 104 Stat. 515.

**§ 31.10–18 [Amended]**

- 6. In § 31.10–18 paragraph (c), after the text, “manufacturer”, add the text “, or its authorized representative, or an independent laboratory accepted for this purpose by the Coast Guard,”.

**PART 32—SPECIAL EQUIPMENT, MACHINERY, AND HULL REQUIREMENTS**

- 7. The authority citation for part 32 is revised to read as follows:

**Authority:** 46 U.S.C. 2103, 3306, 3703, 3719; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92); Subpart 32.59 also issued under the authority of Sec. 4109, Pub. L. 101–380, 104 Stat. 515.

**§ 32.90–1 [Amended]**

- 8. Amend § 32.90–1 by removing paragraph (h).

**PART 34—FIRE FIGHTING EQUIPMENT**

- 9. The authority citation for part 34 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

**§ 34.10–90 [Amended]**

- 10. Amend § 34.10–90(a)(3) by:
  - a. Adding a comma after the text, “20 gross tons or under”; and
  - b. Removing the text “B–II”, and adding, in its place, the text, “40–B”.
- 11. In § 34.50–10, in the table in paragraph (h), revise the second entry under “Service Areas” to read as follows:

**§ 34.50–10 Location, number, and installation of fire extinguishers—TB/ALL.**

\* \* \* \* \*

(h) \* \* \*

TABLE 34.50–10(a)—PORTABLE AND SEMI-PORTABLE EXTINGUISHERS

Tank ships			Tank barges			
Quantity and location		Minimum required rating	Area		Minimum required rating	Quantity and location
*	*	*	*	*	*	*
<b>Service Areas</b>						
*	*	*	*	*	*	*
1	required for each 2,500 sq ft or fraction thereof.	40–B	Stores areas, including paint and lamp rooms	.....	None required.	
*	*	*	*	*	*	*

**PART 35—OPERATIONS**

■ 12. The authority citation for part 35 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 3306, 3703, 6101, 70011, 70034; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(70), (73), (92).

**§ 35.30–20 [Amended]**

■ 13. In § 35.30–20(c)(1), remove the text “the Mine Safety and Health Administration (MSHA) and by”.

**PART 39—VAPOR CONTROL SYSTEMS**

■ 14. The authority citation for part 39 is revised to read as follows:

**Authority:** 42 U.S.C. 7511b(f)(2); 46 U.S.C. 3306, 3703, 3715(b), 70011, 70034; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(70), (92).

■ 15. Amend § 39.1005 as follows:

- a. Revise paragraph (a);
- b. Redesignate paragraphs (g) through (i) as paragraphs (h) through (j);
- c. Add new paragraph (g).

The revisions and additions read as follows:

**§ 39.1005 Incorporation by reference –TB/ ALL.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard and at the National Archives and Records Administration (NARA). Contact Coast

Guard at: Commandant (CG–ENG–4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509; email [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the sources in the following paragraphs of this section.

\* \* \* \* \*

(g) International Organization for Standardization (ISO), ISO Central Secretariat Chemin de Blandonnet 8. CP 401–1214 Vernier, Geneva, Switzerland, telephone 41 22 749 01 11, <https://www.iso.org/contact-iso.html>.

(1) ISO 15364:2021(E), Ships and Marine Technology—Pressure-vacuum valves for cargo tanks and devices to prevent the passage of flame into cargo tanks, Fourth Edition (February 2021) (“ISO 15364”), IBR approved for § 39.2011(b).

(2) [Reserved]

\* \* \* \* \*

■ 16. Revise § 39.2011(b)(1) to read as follows:

**§ 39.2011 Vapor overpressure and vacuum protection—TB/ALL**

\* \* \* \* \*

(b) \* \* \*

(1) Be type approved under 46 CFR 162.017, for the pressure and vacuum relief setting desired. Pressure-vacuum relief valves that meet the requirements of ISO 15364 (incorporated by reference, see § 39.1005) or equivalent standards acceptable to the flag state are

acceptable for installation on foreign-flagged vessels and do not require type approval;

\* \* \* \* \*

**PART 56—PIPING SYSTEMS AND APPURTENANCES**

■ 17. The authority citation for part 56 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j), 1509; 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(73), (75), (90), (92).

**§ 56.60–25 [Amended]**

■ 18. In § 56.60–25(a)(4), remove the sentence “Pipe that is to be used for potable water must bear the appropriate certification mark of a nationally recognized, ANSI-accredited third-party certification laboratory.”.

**PART 76—FIRE PROTECTION EQUIPMENT**

■ 19. The authority citation for part 76 is revised to read as follows:

**Authority:** 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

■ 20. In § 76.50–10, in the table in paragraph (b), revise the first entry under “Safety Area”, Note 4 to Table 76.50–10(a), and Note 7 to Table 76.50–10(a) to read as follows:

**§ 76.50–10 Location.**

\* \* \* \* \*



TABLE 76.50–10(a)—CARRIAGE OF PORTABLE AND SEMI-PORTABLE FIRE EXTINGUISHERS

Space	Fire extinguishing	
	Minimum required rating	Quantity and location
<b>Safety Area <sup>1</sup></b>		
Wheelhouse or fire control room .....	2–A, 20–B:C .....	1 of each rating required for vessels over 1,000 GT. Only 1 extinguisher is required if it carries both 2–A and 20–B:C ratings.
* * * * *	* * * * *	* * * * *

<sup>4</sup> Vessels of less than 1,000 GT and not on an international voyage may substitute one 120–B for one 160–B.

<sup>7</sup> Two 10–B units may be substituted for one 40–B unit.

**PART 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT**

■ 21. The authority citation for part 77 is revised to read as follows:

**Authority:** 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

**§ 77.35–5 [Amended]**

■ 22. In § 77.35–5 (b), remove the text “the Mine Safety and Health Administration (MSHA) and”.

**§ 77.40–1 [Amended]**

■ 23. Amend § 77.40–1 by removing paragraph (h).

**PART 95—FIRE PROTECTION EQUIPMENT**

■ 24. The authority citation for part 95 is revised to read as follows:

**Authority:** 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

**§ 95.50–10 [Amended]**

■ 25. In § 95.50–10, at Note 4 to Table 95.50–10(a), remove the text “160–B.” and add, in its place, the text “120–B.”

**PART 96—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT**

■ 26. The authority citation for part 96 is revised to read as follows:

**Authority:** 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(92).

**§ 96.35–5 [Amended]**

■ 27. In § 96.35–5(b), remove the text “the Mine Safety and Health Administration (MSHA) and by”.

**§ 96.40–1 [Amended]**

■ 28. Amend § 96.40–1 by removing paragraph (h).

**PART 105—COMMERCIAL FISHING VESSELS DISPENSING PETROLEUM PRODUCTS**

■ 29. The authority citation for part 105 is revised to read as follows:

**Authority:** 6 U.S.C. 468(b); 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 3703, 4502; E.O. 12777, sec. 2(d)(2) and (f), 56 FR 54757, 3 CFR, 1991 Comp., p. 351; DHS Delegation No. 00170.1, Revision No. 01.3, paragraphs (II)(73), (80), (92).

■ 30. Revise § 105.14(a) to read as follows:

**§ 105.14 Fire Extinguishing Equipment.**

(a) In addition to the extinguishers in § 28.160, Table 28.160, each vessel must carry at least two 40–B fire extinguishers that are approved under § 162.028 or § 162.039 of this chapter and must be located at or near the dispensing area. Extinguishers with larger numerical ratings or multiple letter designations may be used to meet this requirement. This equipment must be examined before issuing a letter of compliance.

\* \* \* \* \*

**PART 107—INSPECTION AND CERTIFICATION**

■ 31. The authority citation for part 107 is revised to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 3306, 3307, 3316; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(90), (92); § 107.05 also issued under the authority of 44 U.S.C. 3507.

**§ 107.235 [Amended]**

■ 32. In § 107.235(b)(4), remove the word, “liquid” and add, in its place, the word, “concentrate”, and, after the text, “representative”, add the text “, or an

independent laboratory accepted for the purpose by the Coast Guard”.

**PART 108—DESIGN AND EQUIPMENT**

■ 33. The authority citation for part 108 is revised to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 3102, 3306; DHS Delegation No. 00170.1, Revision No. 01.3, paragraph (II)(90), (92).

■ 34. Revise § 108.103 to read as follows:

**§ 108.103 Equipment not required on a unit.**

(a) Each item of lifesaving and firefighting equipment carried on board the unit in addition to equipment of the type required under this subchapter, must—

- (1) Be approved; or
- (2) Be acceptable to the cognizant OCMI, for use on the unit.

(b) Use of non-approved fire detection systems may be acceptable as excess equipment, provided that—

- (1) Components are listed and labeled by an independent, nationally recognized testing laboratory as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer’s specific guidance;
- (2) Installation conforms to the requirements of 46 CFR chapter I, subchapter J (Electrical Engineering), including the hazardous location electrical installation regulations in 46 CFR 111.105; and
- (3) Coast Guard plan review is completed for wiring plans.

■ 35. Revise § 108.489(a)(3) to read as follows:

**§ 108.489 Helicopter fueling facilities.**

- (a) \* \* \*
- (3) A 160–B fire extinguisher approved under § 162.028 or § 162.039 of this chapter for each fueling facility up to 300 square feet (27.87 square meters). Extinguishers with larger numerical ratings or multiple letter

designations may be used to meet this requirement.

■ 36. In § 108.495, in the table, revise the fourth entry under “Service Spaces”

and the first entry under “Auxiliary Spaces” to read as follows:

\* \* \* \* \*

TABLE 108.495—CARRIAGE OF PORTABLE FIRE EXTINGUISHERS

Space	Minimum required rating	Quantity and location
<b>Safety Areas</b>		
*	*	*
<b>Accommodations</b>		
*	*	*
<b>Service Spaces</b>		
*	*	*
*	*	*
*	*	*
Workshop and similar spaces .....	20-B:C .....	1 outside each space in the vicinity of the exit.
<b>Machinery Spaces</b>		
*	*	*
<b>Auxiliary Spaces</b>		
Internal combustion engines or gas turbine .....	40-B .....	1 outside the space containing engines or turbines in the vicinity of the exit.
*	*	*
*	*	*
*	*	*
*	*	*
<b>Miscellaneous Areas</b>		
*	*	*
<b>Spare Units</b>		
*	*	*

\* \* \* \* \*

**§ 108.497 [Amended]**

■ 37. In § 108.497(a), remove the text, “the Mine Safety and Health Administration (MSHA) and by”.

**§ 108.570 [Amended]**

■ 38. In § 108.570(c)(3), remove the word “must” and add, in its place, the word “may”.

**§ 108.719 [Amended]**

■ 39. Amend § 108.719 by removing paragraph (h).

**PART 109—OPERATIONS**

■ 40. The authority citation for part 109 is revised to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 3306, 6101, 10104; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(90), (92).

■ 41. Revise § 109.301(j) to read as follows:

**§ 109.301 Operational readiness, maintenance, and inspection of lifesaving equipment.**

\* \* \* \* \*

(j) *Maintenance of falls.* Each fall used in a launching appliance must be

inspected annually with special regard for areas passing through sheaves and must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.

\* \* \* \* \*

**PART 115—INSPECTION AND CERTIFICATION**

■ 42. The authority citation for part 115 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307; 49 U.S.C. App. 1804; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975

Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(73), (92).

§ 115.810 [Amended]

- 43. In § 115.810(b)(1), remove the text, “Chapter 4 of”.

PART 116—CONSTRUCTION AND ARRANGEMENT

- 44. The authority citation for part 116 is revised to read as follows:

Authority: 46 U.S.C. 2103, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277, DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

- 45. Revise § 116.400(c) to read as follows:

§ 116.400 Application

\* \* \* \* \*

(c) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11 (incorporated by reference, see § 114.600), when combined with the requirements in § 72.05-20 of subchapter H of this chapter, may be considered equivalent to the provisions of this subpart.

\* \* \* \* \*

- 46. Revise § 116.405(f) to read as follows:

§ 116.405 General arrangement and outfitting.

\* \* \* \* \*

(f) Nonmetallic piping in concealed spaces. The use of nonmetallic (plastic) pipe within a concealed space in a control space, accommodation space, or service space is permitted in nonvital service only if the piping material has been approved under § 164.141 of this chapter and meets both low flame spread rating and toxicity requirements.

\* \* \* \* \*

PART 118—FIRE PROTECTION EQUIPMENT

- 47. The authority citation for part 118 is revised to read as follows:

Authority: 46 U.S.C. 2103, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

§ 118.500 [Amended]

- 48. Amend § 118.500 by:

- a. In paragraph (c), removing the text “10” and adding, in its place, the text “5”; and

- b. In paragraph (d), removing the text “(c)” and adding, in its place, the text “(b)”.

PART 132—FIRE PROTECTION EQUIPMENT

- 49. The authority citation for part 132 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3307; sec. 617, Pub. L. 111-281, 124 Stat. 2905; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

§ 132.365 [Amended]

- 50. In paragraph (b)(1), remove the text “the Mine Safety and Health Administration and by”.

PART 147—HAZARDOUS SHIPS STORES

- 51. The authority citation for part 147 is revised to read as follows:

Authority: 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

- 52. Revise § 147.66(a) and (c) to read as follows:

§ 147.66 Inert gas fire extinguishing systems.

(a) Inert gas cylinders forming part of a clean agent fixed fire extinguishing system must be retested every 12 years.

\* \* \* \* \*

(c) Flexible connections between cylinders and discharge piping for fixed inert gas fire extinguishing systems must be renewed or retested in accordance with section 7.3 of NFPA 2001 (incorporated by reference, see § 147.7), except that this renewal or retesting must occur when the cylinders are retested.

PART 159—APPROVAL OF EQUIPMENT AND MATERIALS

- 53. The authority citation for part 159 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3703; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92); Section 159.001-9 also issued under the authority of 44 U.S.C. 3507.

- 54. Revise § 159.001-5 to read as follows:

§ 159.001-5 Correspondence and applications.

(a) Unless otherwise specified, all correspondence and applications in connection with approval and testing of equipment and materials should be submitted electronically to *typeapproval@uscg.mil*. When plans, drawings, test data, etc., are required to be submitted by the manufacturer, the material being transmitted with the application should be clearly identified.

(b) If the manufacturer desires hard copy stamped plans be returned to them, or if product samples must be

submitted, the plans or samples must be addressed to: Commandant (CG-ENG), Attn: Office of Design & Engineering Standards, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593-7509. When submitted, hard copy plans must be accompanied by electronic drawings or must be submitted in triplicate.

PART 160—LIFESAVING EQUIPMENT

- 55. The authority citation for part 160 is revised to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3703,4302; E.O. 12234; 45 FR 58801; 3 CFR, 1980 Comp., p. 277; and DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

- 56. Revise § 160.115-7(b)(6)(vi) introductory text and (b)(6)(vi)(A) to read as follows:

§ 160.115-7 Design, construction, and performance of winches.

\* \* \* \* \*

(b) \* \* \*  
(6) \* \* \*

(vi) Limit switches must be provided to limit the travel of the davit arms as they approach the final stowed position and prevent overstressing the falls or davits. These switches must—

(A) Be arranged so that the activation of any limit switch will stop the travel of all of the davit arms;

\* \* \* \* \*

§§ 160.115-9, 160.115-13, 160.132-9, 160.132-13, and 160.133-9 [Amended]

- 57. In §§ 160.115-9(b), 160.115-13(g)(2), 160.132-9(b), 160.132-13(g)(2), and 160.133-9(b), remove all instances of the words, “in triplicate”.

§ 160.133-13 [Amended]

- 58. In § 160.133-13(g)(2), remove the text, “, in triplicate”.

- 59. Add § 160.135-5(d)(7) to read as follows:

§ 160.135-5 Incorporation by reference.

\* \* \* \* \*

(d) \* \* \*

(7) MSC/Circular 1006, Guidelines On Fire Test Procedures For Acceptance Of Fire-Retardant Materials For The Construction Of Lifeboats, (June 18, 2001), IBR approved for § 160.135-7(b) (“IMO MSC Circ. 1006”).

\* \* \* \* \*

§ 160.135-7 [Amended]

- 60. In § 160.135-7(b)(3)(iv)(A), remove the text, “and accepted by the Commandant in accordance with 46 CFR part 164, subpart 164.120” and add, in its place, the text, “according to IMO MSC Circ. 1006 (incorporated by reference, see § 160.135-5)”.

**§ 160.135–9 [Amended]**

■ 61. In § 160.135–9(b), remove the words “in triplicate”.

**§ 160.135–13 [Amended]**

■ 62. In § 160.135–13(g)(2), remove the text “, in triplicate”.

■ 63. Add § 160.156–5(d)(7) to read as follows:

**§ 160.156–5 Incorporation by reference.**

\* \* \* \* \*

(d) \* \* \*

(7) MSC/Circular 1006, Guidelines On Fire Test Procedures For Acceptance Of Fire-Retardant Materials For The Construction Of Lifeboats (June 18, 2001) (“IMO MSC Circ. 1006”), IBR approved for § 160.156–7.

\* \* \* \* \*

**§ 160.156–7 [Amended]**

■ 64. In § 160.156–7(b)(3)(iv)(A), remove the text, “and accepted by the Commandant in accordance with 46 CFR part 164, subpart 164.120”, and add, in its place, the text, “according to IMO MSC Circ. 1006 (incorporated by reference, see § 160.156–7).”.

**§ 160.156–9 [Amended]**

■ 65. In § 160.156–9(b), remove the words, “in triplicate”.

**§ 160.156–13 [Amended]**

■ 66. In § 160.156–13(g)(2), remove the text, “, in triplicate”.

**§ 160.170–9 [Amended]**

■ 67. In § 160.170–9(b), remove words, “in triplicate”.

**§ 160.170–13 [Amended]**

■ 68. In § 160.170–13(g)(2), remove text, “, in triplicate,”.

■ 69. Revise § 160.171–3 to read as follows:

**§ 160.171–3 Incorporation by reference.**

(a) Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard Headquarters and at the National Archives and Records Administration (NARA). Contact the Coast Guard at: Commandant (CG–ENG–4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509; email [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, visit: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material

may be obtained from the sources in the following paragraphs of this section.

(b) *ASTM International (ASTM)*. 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959; phone: +1 610 832 9500; email: [service@astm.org](mailto:service@astm.org); web: <https://www.astm.org>.

(1) ASTM B117–97, Standard Practice for Operating Salt Spray (Fog) Apparatus (“ASTM B117”); § 160.171–17(k).

(2) ASTM C177–85 (1993), Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus (“ASTM C177”); § 160.171–17(e).

(3) ASTM C518–91, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus (“ASTM C518”); § 160.171–17(e).

(4) ASTM D975–14, Standard Specification for Diesel Fuel Oils (“ASTM D975”); § 160.171–17(p).

(5) ASTM D1004–94a, Standard Test Method for Initial Tear Resistance of Plastic Film and Sheeting (“ASTM D1004”); § 160.171–17(n).

(c) *General Services Administration (GSA)*. email: [GSAStandards@gsa.gov](mailto:GSAStandards@gsa.gov); web: <https://fedspecs.gsa.gov/s/federal-specifications>.

(1) Federal Test Method Standard No. 191 dated July 20, 1978, Method 5304.1, Abrasion Resistance of Cloth, Oscillatory Cylinder (Wyzenbeek) Method, dated July 9, 1971 (“Federal Test Method Standard 191, Method 5304.1”); § 160.171–17(o).

(2) Federal Standard No. 751a, Stitches, Seams, and Stitchings, dated January 25, 1965 (“Federal Standard No. 751”); § 160.171–9(c).

(d) *National Institution of Standards and Technology (NIST) (formerly National Bureau of Standards)*. U.S. Department of Commerce, National Institution of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899; phone: (301) 975–2000; web: <https://www.nist.gov>.

(1) National Bureau of Standards Special Publication 440—Color, Universal Language and Dictionary of Names; December 1976 (<https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nbsspecialpublication440.pdf>) (“National Bureau of Standards Publication 440”); § 160.171–9(h).

(2) [Reserved]

(e) *Underwriters Laboratories (UL)*. 1850 M. St. NW, Suite 1000, Washington, DC, District of Columbia, 20036–5833; phone: (202) 296.7840; fax: (202) 872.1576; web: <https://www.ul.com>.

(1) UL 1191, First Edition (Standard for Components for Personal Flotation Devices), as revised March 29, 1977; § 160.171–17(h).

(2) [Reserved]

■ 70. Revise § 160.174–3 to read as follows:

**§ 160.174–3 Incorporation by reference.**

Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard Headquarters and at the National Archives and Records Administration (NARA). Contact the Coast Guard at: Commandant (CG–ENG–4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509; email [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html). The material may be obtained from the sources in the following paragraphs of this section. Error! Hyperlink reference not valid.

(a) *ASTM International (ASTM)*. 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959; phone: +1 610 832 9500; email: [service@astm.org](mailto:service@astm.org); web: <https://www.astm.org>.

(1) ASTM C177–85 (1993), Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus (“ASTM C 177”); § 160.174–17(f) and (g).

(2) ASTM C518–91, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus (“ASTM C 518”); § 160.174–17(f) and (g).

(3) ASTM D975–14, Standard Specification for Diesel Fuel Oils (“ASTM D 975”); § 160.174–17(g).

(4) ASTM D1004–94a, Standard Test Method for Initial Tear Resistance of Plastic Film and Sheeting (“ASTM D 1004”); § 160.171–47(i).

(5) ASTM D1518–85 (1990), Standard Test Method for Thermal Transmittance of Textile Materials (“ASTM D 1518”); 160.174–17(f).

(b) *General Services Administration (GSA)*. email: [GSAStandards@gsa.gov](mailto:GSAStandards@gsa.gov); web: <https://fedspecs.gsa.gov/s/federal-specifications>.

(1) Federal Standard No. 751a, Stitches, Seams, and Stitchings, dated

January 25, 1965 (“Federal Standard No. 751”); § 160.174–9(b).

(2) [Reserved]

(c) *National Institution of Standards and Technology (NIST) (formerly National Bureau of Standards)*. U.S. Department of Commerce, National Institution of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899; phone: (301) 975–2000; web: <https://www.nist.gov>.

(1) National Bureau of Standards Special Publication 440—Color, Universal Language and Dictionary of Names (“National Bureau of Standards Publication 440”); December 1976 (<https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nbsspecialpublication440.pdf>); § 160.174–9(f).

(2) [Reserved]

### PART 161—Electrical Equipment.

■ 71. The authority citation for part 161 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3703, 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

### PART 161—ELECTRICAL EQUIPMENT

■ 72. Revise the section heading to § 161.002–18 and paragraph (a) to read as follows:

#### § 161.002–18 System method of applications for equipment approval.

(a) The manufacturer must submit the following material to the Commandant (CG–ENG), according to § 159.001–5:

(1) A formal written request that the system be reviewed for approval.

(2) The system’s instruction manual, including information concerning installation, maintenance, limitations, programming, operation, and troubleshooting.

(3) Proof of listing the system devices meeting the requirements of § 161.002–6(a).

(4) The complete test report(s) meeting the requirements of § 161.002–6 generated by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7. A current list of Coast Guard-accepted laboratories may be obtained from the following website: <https://cgmix.uscg.mil/eqlabs/>.

(5) A list prepared by the manufacturer that contains the name, model number, and function of each major component and accessory, such as the main control cabinet, remote annunciator cabinet, detector, zone card, isolator, central processing unit, zener barrier, special purpose module, or power supply. This list must be

identified by the following information assigned by the manufacturer:

(i) A document number;

(ii) A revision number (the original submission being revision number 0); and

(iii) The date that the manufacturer created or revised the list.

\* \* \* \* \*

■ 73. Revise the section heading to § 161.002–19 and paragraphs (a) and (b) to read as follows:

#### § 161.002–19 Device method of application for equipment approval.

(a) The manufacturer must submit the following material to the Commandant (CG–ENG) according to § 159.001–5:

(1) A formal written request that the device be reviewed for approval;

(2) The device’s instruction manual, including information concerning installation, maintenance, limitations, programming, operation, and troubleshooting;

(3) Proof of listing the device meeting the requirements of § 161.002–6(a); and

(4) The complete test report(s) meeting the requirements of § 161.002–6 generated by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7. A current list of Coast Guard accepted laboratories may be obtained from the following website: <https://cgmix.uscg.mil/eqlabs/>.

(b) To apply for a revision, the manufacturer must submit—

(1) A written request under paragraph (a) of this section;

(2) Updated documentation under paragraph (a)(2) of this section;

(3) Proof of listing the device meeting the requirements of § 161.002–6(a); and

(4) A report by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7 is required to document compliance with § 161.002–6.

\* \* \* \* \*

#### § 161.011–1 [Amended]

■ 74. In § 161.011–1, remove the word “approval” and add, in its place, the word “acceptance”.

■ 75. Revise § 161.011–5 to read as follows:

#### § 161.011–5 Types.

EPIRBs are typed as follows:

(a) Category 1—EPIRBs are capable of floating free of a vessel and activating automatically if the vessel sinks.

(b) Category 2—EPIRBs are manually removed from the mounting bracket and activated.

■ 76. Revise § 161.011–10 to read as follows:

#### § 161.011–10 EPIRB acceptance.

(a) The Coast Guard reviews test reports from an accepted independent laboratory for EPIRBs accepted in § 161.011–5 of this subpart.

(b) An application for acceptance or type acceptance of an EPIRB should be submitted to the Coast Guard before the FCC in accordance with title 47 of the Code of Federal Regulations (CFR), part 1061. When requested by the FCC, the Coast Guard reviews the test results in the application that concern installation and operation of the EPIRB. The Coast Guard provides the results of the review to the manufacturer, and to the FCC for its use in acting upon the application.

■ 77. Amend § 161.012–5 by:

■ a. Revising paragraph (a); and

■ b. In paragraph (b), removing the words “Two copies of plans” and adding, in their place, the word “Plans”.

The revision reads as follows:

#### § 161.012–5 Approval procedures.

(a) An application for approval of a PFD light under this subpart must be submitted to the Commandant (CG–ENG) according to § 159.001–5.

\* \* \* \* \*

■ 78. Revise 161.013–11(c)(1) to read as follows:

#### § 161.013–11 Prototype test.

\* \* \* \* \*

(c) \* \* \*

(1) Forward the test results within 30 days to the Commandant (CG–ENG) according to § 159.005–1; and

\* \* \* \* \*

■ 79. Revise § 161.013–17 to read as follows:

#### § 161.013–17 Manufacturer notification.

Each manufacturer certifying lights in accordance with the specifications of this subpart must send written notice to the Commandant (CG–ENG) according to § 159.005–1 within 30 days after first certifying the lights, and send a new notice every 5 years thereafter as long as it certifies lights.

### PART 162—ENGINEERING EQUIPMENT

■ 80. The authority citation for part 162 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j), 1903; 46 U.S.C. 3306, 3703, 4104, 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(73), (92).

■ 81. Add § 162.017–0 to read as follows:

**§ 162.017-0 Preemptive effect.**

The regulations in this part have preemptive effect over State or local regulations in the same field.

■ 82. Revise § 162.017-1 to read as follows:

**§ 162.017-1 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard and at the National Archives and Records Administration (NARA). Contact Coast Guard at: Commandant (CG-ENG-4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593-7509; email [typesapproval@uscg.mil](mailto:typesapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the source(s) in the following paragraph(s) of this section.

(b) International Organization for Standardization (ISO), ISO Central Secretariat Chemin de Blandonnet 8. CP 401-1214 Vernier, Geneva, Switzerland, telephone 41 22 749 01 11, <https://www.iso.org/contact-iso.html>.

(1) ISO 15364:2021(E), Ships and Marine Technology—Pressure-vacuum valves for cargo tanks and devices to prevent the passage of flame into cargo tanks, Fourth Edition (February 2021) (“ISO 15364”), IBR approved for § 162.017-3(r).

(2) [Reserved]

**§ 162.017-2 [Amended]**

■ 83. In § 162.017-2, remove the word, “flammable”, and add, in its place, the word, “inflammable”.

■ 84. Revise § 162.017-3(g), (n) and (r) to read as follows:

**§ 162.017-3 Materials, construction, and workmanship.**

\* \* \* \* \*

(g) The design and construction of the valves must permit maintenance without removal from the line.

\* \* \* \* \*

(n) Double flame screens of 20 × 20 corrosion-resistant wire mesh with a 1/2-inch corrosion-resistant separator, or a single screen of 30 × 30 corrosion-resistant wire mesh, shall be fitted on all openings to atmosphere. The net free area through the flame screens shall not be less than 1 1/2 times the cross-

sectional area of the vent inlet from the cargo tanks.

\* \* \* \* \*

(r) Pressure-vacuum relief valves constructed in accordance with ISO 15364 (incorporated by reference; see § 162.017-1) meet the requirements of this subpart, and are eligible to receive approval by submitting an application in accordance with § 162.017-6.

■ 85. Amend § 162.017-6 by:

■ a. Revising paragraph (a);

■ b. In paragraph (b), removing the words “in quadruplicate”; and

■ c. In paragraph (c), removing the text “, by the Underwriters’ Laboratories, the Factory Mutual Laboratories, or”.

The revision reads as follows.

**§ 162.017-6 Procedure for approval.**

(a) Applications for approval must be submitted to the Commanding Officer, U.S. Coast Guard Marine Safety Center. Applications may be submitted electronically, by mail or in-person. Mail or in-person submissions may be delivered to U.S. Coast Guard Stop 7430, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593-7430. Information for submitting applications electronically can be found at <https://www.uscg.mil/HQ/MSG>.

\* \* \* \* \*

■ 86. Revise § 162.050-15(a) to read as follows:

**§ 162.050-15 Designation of facilities.**

(a) Each request for designation as a facility authorized to perform approval tests must be submitted to the Commandant (CG-ENG) according to § 159.005-1.

\* \* \* \* \*

■ 87. Revise § 162.060-40(b) to read as follows:

**§ 162.060-40 Requirements for Independent Laboratories (ILs).**

\* \* \* \* \*

(b) Each request for designation as an independent laboratory authorized under paragraph (a) of this section must be submitted to the Commandant (CG-ENG) according to § 159.005-1.

\* \* \* \* \*

**PART 163—CONSTRUCTION**

■ 88. The authority citation for part 163 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3703, 5115; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

**Subpart 163.002 [Removed and Reserved]**

■ 89. Remove and reserve subpart 163.002, consisting of §§ 163.002-1 through 163.002-27.

**PART 164—MATERIALS**

■ 90. The authority citation for part 164 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3703, 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

■ 91. Revise § 164.009-9(a) to read as follows:

**§ 164.009-9 Procedure for approval.**

(a) An application for approval of a material under this subpart must be submitted to the Commandant (CG-ENG) according to § 159.005-1.

\* \* \* \* \*

■ 92. Amend § 164.018-7 by:

■ a. Revise paragraph (a); and

■ b. In paragraph (b)(2), removing the words, “Two copies of plans” and adding, in their place, the word “Plans”.

The revision reads as follows:

**§ 164.018-7 Approval procedures.**

(a) An application for approval of retroreflective material must be submitted to the Commandant (CG-ENG) according to § 159.005-1.

\* \* \* \* \*

**§ 164.106-3 [Amended]**

■ 93. In § 164.106-3(a), remove the text “Part 6” and add, in its place, the text “Part 5”.

**Subpart 164.120 [Removed]**

■ 94. Remove subpart 164.120, consisting of §§ 164.120-1 through 164.120-15.

**§ 164.137-2 [Amended]**

■ 95. In § 164.137-2, remove and reserve paragraph (b)(2).

■ 96. Revise § 164.137-3(a) to read as follows:

**§ 164.137-3 Testing, marking, and inspection requirements.**

(a) Windows submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.137-2). Windows must also meet the thermal radiation test supplement to fire resistance, and hose stream test supplement, as outlined in Appendix 1 of Part 3 of the FTP Code.

\* \* \* \* \*

■ 97. Amend 164.138-2 by:

■ a. Revising paragraph (a); and

■ b. Removing and reserving paragraph (b)(2).

The revision reads as follows:

**§ 164.138–2 Incorporation by reference.**

(a) Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard and at the National Archives and Records Administration (NARA). Contact Coast Guard at: Commandant (CG–ENG–4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509; email [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the sources in the following paragraphs of this section.

\* \* \* \* \*

■ 98. Revise § 164.138–3(a) to read as follows:

**§ 164.138–3 Testing, marking, and inspection requirements.**

(a) Fire stops (penetration seals) submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.138–2), including testing in accordance with Part 3, Appendix 3 and Appendix 4.

\* \* \* \* \*

■ 99. Amend 164.139–2 by:

- a. Revising paragraph (a); and
- b. Removing and reserving paragraph (b)(2).

The revision reads as follows:

**§ 164.139–2 Incorporation by reference.**

(a) Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Coast Guard and at the National Archives and Records Administration (NARA). Contact Coast Guard at: Commandant (CG–ENG–4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE, Washington, DC 20593–7509; email [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or visit <https://www.dco.uscg.mil/CG-ENG-4/>. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the sources in the following paragraphs of this section.

\* \* \* \* \*

■ 100. Revise § 164.139–3(a) to read as follows:

**§ 164.139–3 Testing, marking, and inspection requirements.**

(a) Automatic fire dampers that are installed in A-class divisions that are submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.139–2), including testing in accordance with Appendix 2.

\* \* \* \* \*

**PART 167—PUBLIC NAUTICAL SCHOOL SHIPS**

■ 101. The authority citation for part 167 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3307, 6101, 8105; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

■ 102. Revise § 167.45–40 introductory text, and paragraphs (a), (d), (e), and (f) to read as follows:

**§ 167.45–40 Fire-fighting equipment on nautical school ships using oil as fuel.**

Steam-propelled nautical school ships burning oil for fuel shall be fitted with the fire-fighting equipment of the following type and quantity:

(a) In each boiler room and in each of the machinery spaces of a nautical school ship propelled by steam, in which a part of the fuel-oil installation is situated, two or more approved 40–B fire extinguishers must be placed where accessible and ready for immediate use. On a nautical school ship of 1,000 gross tons and under, only one is required.

\* \* \* \* \*

(d) On every steam propelled nautical school ship of over 1,000 gross tons having one boiler room there shall be provided one 160–B fire extinguisher. If the nautical school ship has more than one boiler room, an extinguisher of the above type shall be provided in each boiler room. On every steam-propelled nautical school ship of 1,000 gross tons and under, a 120–B fire extinguisher may be used. Extinguishers fitted shall be equipped with suitable hose and nozzles on reels or other practicable means for easy access, and of sufficient length to reach any part of the boiler room and spaces containing oil-fuel pumping units.

(e) All nautical school ships propelled by internal-combustion engines shall be equipped with the following fire extinguishers in the machinery spaces:

- (1) One 120–B fire extinguisher.
- (2) One 40–B extinguisher for each 1,000 BHP of the main engines, or fraction thereof. The total number of fire

extinguishers carried shall not be less than two and not more than six.

(3) When a donkey boiler fitted to burn oil as fuel is located in the machinery space, there shall be a 160–B fire extinguisher installed instead of the 120–B fire extinguisher.

(f) In this section, any reference to a fire extinguisher means approved by the Coast Guard.

**§ 167.45–60 [Amended]**

■ 103. In § 167.45–60(a), remove the text “the Mine Safety and Health Administration (MSHA) and by”.

■ 104. Revise § 167.45–65 to read as follows:

**§ 167.45–65 Portable fire extinguishers in accommodation spaces.**

All nautical school ships shall be provided with such number of good and efficient portable fire extinguishers approved by the Coast Guard as follows:

(a) Nautical school ships less than 150 feet in length shall have at least two 2–A fire extinguishers on each passenger deck.

(b) Nautical school ships 150 feet and over in length shall be provided with at least one 2–A fire extinguisher for every 150 linear feet of corridor length or fraction thereof in the spaces occupied by passengers and crew.

(c) In all public spaces fire extinguishers shall be located not more than 150 feet apart.

■ 105. Amend § 167.45–70 by:

■ a. Removing paragraphs (a), (b), and (c);

■ b. Redesignating paragraphs (d) and (e) as paragraphs (a) and (b), respectively;

■ c. In new paragraph (b), removing the words “in still” and adding, in their place, the words “it is still in”; removing the words “it the cartridge” and adding, in their place, the words “if the cartridge”; and removing the word “gage” and adding, in its place, the word “gauge”; and

■ d. Adding paragraph (c) to read as follows:

**§ 167.45–70 Portable fire extinguishers, general requirements.**

\* \* \* \* \*

(c) In addition to the required extinguishers in this part, each vessel shall carry no less than 10 percent spare extinguishers or charges for each size and variety of fire extinguisher, with a minimum of one for each size and variety of extinguisher.

■ 106. Add § 167.45–71 to read as follows:

**§ 167.45–71 Exemptions to the requirements of portable fire extinguishers required for vessels constructed before August 22, 2016.**

Vessels contracted for before August 22, 2016, must meet the following requirements:

(a) Previously installed portable and semi-portable fire extinguishers with extinguishing capacities smaller than what is required in part 167 need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of

the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this part for new vessels.

**§ 167.45–75 [Amended]**

■ 107. In § 167.45–75, after the words “approved by the Coast Guard”, remove the words “or the Navy”.

**PART 169—SAILING SCHOOL VESSELS**

■ 108. The authority citation for part 169 is revised to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 3306, 6101; Pub. L. 103–206, 107 Stat. 2439; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 793; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(73), (92); § 169.117 also issued under the authority of 44 U.S.C. 3507.

■ 109. In § 169.567, in the table in paragraph (a), revise the last entry to read as follows:

**TABLE 169.567(a)—REQUIRED PORTABLE FIRE EXTINGUISHERS**

Space	Portable fire extinguishers	
	Minimum required rating	Quantity and location
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*
	40–B:C .....	10 percent of the required number, rounded up.

■ 110. Add § 169.568 to read as follows:

**§ 169.568 Exemptions to the requirements of portable fire extinguishers required for vessels constructed before August 22, 2016.**

Vessels contracted for before August 22, 2016, must meet the following requirements:

(a) Previously installed portable and semi-portable fire extinguishers with extinguishing capacities smaller than what is required in this subpart need not be replaced and may be continued

in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this part for new vessels.

**§ 169.717 [Amended]**

■ 111. In § 169.717(a)(1), remove the text “the Mine Safety Health Administration (MSHA) and by” and remove the text “by MSHA and NIOSH”.

**PART 181—LIFESAVING SYSTEMS FOR CERTAIN INSPECTED VESSELS**

■ 112. The authority citation for part 181 is revised to read as follows:

**Authority:** 46 U.S.C. 2103, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

■ 113. In § 181.500, in the table in paragraph (b), revise the fourth entry to read as follows:

**TABLE 181.500(b)—REQUIRED PORTABLE FIRE EXTINGUISHERS**

Space	Portable fire extinguishers	
	Minimum required rating	Quantity and location
*	*	*
*	*	*
*	*	*
Accommodation Space .....	2–A .....	1 each for each 2,500 square feet (232.3 square meters) or fraction thereof.
*	*	*
*	*	*



## PART 195—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS

■ 114. The authority citation for part 195 is revised to read as follows:

**Authority:** 46 U.S.C. 2113, 3306, 3307; 49 U.S.C. App. 1804; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

### § 195.40–1 [Amended]

■ 115. In § 195.40–1 remove paragraph (h).

## PART 199—LIFESAVING SYSTEMS FOR CERTAIN INSPECTED VESSELS

■ 116. The authority citation for part 199 is revised to read as follows:

**Authority:** 46 U.S.C. 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; DHS Delegation 00170.1, Revision No. 01.3, paragraph (II)(92).

■ 117. Revise § 199.190(j) to read as follows:

### § 199.190 Operational readiness, maintenance, and inspection of lifesaving equipment.

\* \* \* \* \*

(j) *Maintenance of falls.* Each fall used in a launching appliance must—

(1) Be inspected annually with special regard for areas passing through sheaves; and

(2) Be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.

\* \* \* \* \*

Dated: April 14, 2023.

**W.R. Arguin,**

*Rear Admiral, U.S. Coast Guard, Assistant Commandant for Prevention Policy.*

[FR Doc. 2023–08400 Filed 5–22–23; 8:45 am]

**BILLING CODE 9110–04–P**

## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

#### 33 CFR Part 165

[Docket Number USCG–2023–0286]

RIN 1625–AA00

### Safety Zone; Shrewsbury River, S–32 Bridge, Boroughs of Rumson and Sea Bright, NJ

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard is proposing to establish a temporary safety zone on the navigable waters of the Shrewsbury River, within a 100-yard radius of the center point of the S–32 Bridge on

County Route 520 (Rumson Road), in the boroughs of Rumson and Sea Bright, New Jersey. The safety zone will include the East and West navigational channels and will temporarily close down a portion of the Shrewsbury River under the S–32 Bridge. The safety zone is needed to protect personnel, vessels, and the marine environment from potential hazards associated with the bridge construction. When enforced, entry of vessels or persons into this zone during the enforcement periods is prohibited unless specifically authorized by the Captain of the Port New York or a designated representative. We invite your comments on this proposed rulemaking. **DATES:** Comments and related material must be received by the Coast Guard on or before June 22, 2023.

**ADDRESSES:** You may submit comments identified by docket number USCG–2023–0286 using the Federal Decision-Making Portal at <https://www.regulations.gov>. See the “Public Participation and Request for Comments” portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

**FOR FURTHER INFORMATION CONTACT:** If you have questions about this proposed rulemaking, call or email MST1 Melanie Hughes, Waterways Management Division, U.S. Coast Guard; telephone 718–354–4352, email [melanie.a.hughes1@uscg.mil](mailto:melanie.a.hughes1@uscg.mil).

### SUPPLEMENTARY INFORMATION:

#### I. Table of Abbreviations

CFR Code of Federal Regulations  
COTP Captain of the Port New York  
DHS Department of Homeland Security  
FR Federal Register  
NPRM Notice of proposed rulemaking  
§ Section  
U.S.C. United States Code

#### II. Background, Purpose, and Legal Basis

On March 15, 2023, the Coast Guard received notification from WSP USA Inc. requesting to close a portion of the Shrewsbury River for the replacement of the S–32 Bridge on County Route 520 (Rumson Road) over the Shrewsbury River in the Boroughs of Rumson and Sea Bright, NJ; Federal Project No. STBGP–0520(300); NJDOT Job No. 6700352. Marine construction actions will consist of several activities, including but not limited to: erection of the bascule span structure steel; counterweights; exodermic deck panels; cast-in-place concrete closure pours; bridge concrete sidewalk; bridge steel railing; concrete deck overlay; and

fender system. These activities are expected to affect navigation along the Shrewsbury River. Marine traffic will be maintained through the channel with partial channel closures for a majority of the duration of construction activities; however, full channel closure will be required for very limited periods. The Captain of the Port New York (COTP) has determined that potential hazards associated with the bridge construction would be a safety concern for anyone within a 100-yard radius of the center point of the bridge.

The purpose of this rulemaking is to protect personnel, vessels, and the marine environment from potential hazards created by the S–32 Bridge construction activities within a 100-yard radius. The Coast Guard is proposing this rulemaking under authority in 46 U.S.C. 70034.

#### III. Discussion of Proposed Rule

The COTP is proposing to establish a safety zone from September 25, 2023, through December 31, 2024, but will only be enforced during periods when heavy lift operations at the new bridge are in progress.

The first full channel closure is anticipated to take place from 6 a.m. on Monday, September 25, 2023, through 5 p.m. on Friday, September 29, 2023. The anticipated contingency date for this channel closure is from 6 a.m. on Monday, October 2, 2023, through 5 p.m. on Friday, October 6, 2023. The second full channel closure is anticipated to take place from 6 a.m. on Monday, November 13, 2023, through 5 p.m. on Friday, November 17, 2023. The anticipated contingency date for this channel closure is from 6 a.m. on Monday, November 20, 2023, through 5 p.m. on Monday, November 27, 2023. The Federal navigation channel closure is due to a 180-foot by 64-foot crane barge spudded down in the channel while conducting heavy lift operations each week at the new bridge.

The remainder of the bridge construction activities will partially close the channel allowing marine traffic to pass on either the east half or the west half of the channel. During these partial closures, the channel will be reduced to a width of 37 feet. The first partial channel closure is anticipated to take place from 12:00 a.m. on Monday, October 2, 2023, through 11:59 p.m. on Friday, November 10, 2023. The second partial channel closure is anticipated to take place from 12 a.m. on Monday, November 20, 2023, through 11:59 p.m. on Friday, March 8, 2024. The third partial channel closure is anticipated to take place from 12 a.m.

on Monday, March 11, 2024, through 11:59 p.m. on Thursday, May 16, 2024.

The Coast Guard is proposing this rule remain effective through December 31, 2024, in case the project is delayed due to unforeseen circumstances. The safety zone would cover all navigable waters of the Shrewsbury River within 100 yards of the center point of the S-32 Bridge. The duration of the zone is intended to ensure the safety of personnel, vessels and these navigable waters during the bridge construction. No vessel or person would be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative. Additional information concerning the Rumson-Sea Bright S-32 Bridge Project can be found at <https://www.rumsonseabrightbridge.com/>.

The regulatory text we are proposing appears at the end of this document.

#### IV. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and Executive orders related to rulemaking. A summary of our analyses based on these statutes and Executive orders follows.

##### A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This NPRM has not been designated a “significant regulatory action,” under Executive Order 12866. Accordingly, the NPRM has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, duration and time-of-day of the safety zone. The safety zone is only in effect for navigable waters of the Shrewsbury River within a 100-yard radius of the center point of the S-32 Bridge and associated construction machinery conducting replacement. The Coast Guard will notify the public of the enforcement of this rule through appropriate means, which may include, but are not limited to, publication in the Local Notice to Mariners and Broadcast Notice to Mariners via VHF-FM marine channel 16.

##### B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601-612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term “small entities” comprises small

businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section IV.A above, this rule will not have a significant economic impact on any vessel owner or operator.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this proposed rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES**) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121), we want to assist small entities in understanding this proposed rule. If the proposed rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section. The Coast Guard will not retaliate against small entities that question or complain about this proposed rule or any policy or action of the Coast Guard.

##### C. Collection of Information

This proposed rule would not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

##### D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132 (Federalism), if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of Government. We have analyzed this proposed rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this proposed rule does not have tribal implications under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments) because it would not

have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. If you believe this proposed rule has implications for federalism or Indian tribes, please call or email the

##### E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the potential effects of this proposed rule elsewhere in this preamble.

##### F. Environment

We have analyzed this proposed rule under Department of Homeland Security Directive 023-01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule involves establishing a safety zone on all navigable waters of the Shrewsbury River, within a 100-yard radius of the center point of the S-32 Bridge, on County Route 520 (Rumson Road) in the Boroughs of Rumson and Sea Bright, New Jersey. It is categorically excluded from further review under paragraph L60 (a) of Appendix A, Table 1 of DHS Instruction Manual 023-01-001-01, Rev. 1. A preliminary Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

##### G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your

message can be received without jeopardizing the safety or security of people, places, or vessels.

#### V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

**Submitting comments.** We encourage you to submit comments through the Federal Decision-Making Portal at <https://www.regulations.gov>. To do so, go to <https://www.regulations.gov>, type USCG-2023-0286 in the search box and click "Search." Next, look for this document in the Search Results column, and click on it. Then click on the Comment option. If you cannot submit your material by using <https://www.regulations.gov>, call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule for alternate instructions.

**Viewing material in docket.** To view documents mentioned in this proposed rule as being available in the docket, find the docket as described in the previous paragraph, and then select "Supporting & Related Material" in the Document Type column. Public comments will also be placed in our online docket and can be viewed by following instructions on the <https://www.regulations.gov> Frequently Asked Questions web page. Also, if you click on the Dockets tab and then the proposed rule, you should see a "Subscribe" option for email alerts. The option will notify you when comments are posted, or a final rule is published.

We review all comments received, but we will only post comments that address the topic of the proposed rule. We may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

**Personal information.** We accept anonymous comments. Comments we post to <https://www.regulations.gov> will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

#### List of Subjects in 33 CFR Part 165

Harbors, Marine Safety, Navigation (water), Reporting and recordkeeping

requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard is proposing to amend 33 CFR part 165 as follows:

#### PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

**Authority:** 46 U.S.C. 70034, 70051, 70124; 33 CFR 1.05-1, 6.04-1, 6.04-6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.3.

■ 2. Add § 165.T01-0286 to read as follows:

##### § 165.T01-0286 Safety Zone; Shrewsbury River, S-32 Bridge, Boroughs of Rumson and Sea Bright, NJ.

(a) *Location.* The following area is a safety zone: All navigable waters of the Shrewsbury River, within a 100-yard radius of the center point of the S-32 Bridge, County Route 520 (Rumson Road) in the boroughs of Rumson and Sea Bright, New Jersey.

(b) *Definitions.* As used in this section, *Designated Representative* means a Coast Guard Officer, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port New York (COTP) in the enforcement of the safety zone.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, no person or vessel may enter the safety zone described in paragraph (a) of this section unless authorized by the Captain of the Port (COTP) or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative via VHF channel 16 or by phone at (718) 354-4353 (Sector New York Command Center). Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP's designated representative.

(d) *Enforcement period.* This section is effective from September 25, 2023, through December 31, 2024, but will only be enforced during periods when heavy lift operations at the new bridge are in progress.

Dated: May 4, 2023.

#### Z. Merchant,

Captain, U.S. Coast Guard, Captain of the Port New York.

[FR Doc. 2023-10942 Filed 5-22-23; 8:45 am]

**BILLING CODE 9110-04-P**

#### ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

#### 36 CFR Part 1195

[Docket No. ATBCB-2023-0001]

RIN 3014-AA45

#### Standards for Accessible Medical Diagnostic Equipment

**AGENCY:** Architectural and Transportation Barriers Compliance Board.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Architectural and Transportation Barriers Compliance Board (hereafter, "Access Board" or "Board"), is issuing this notice of proposed rulemaking to remove the sunset provisions in the Board's existing accessibility standards for medical diagnostic equipment related to the low-height specifications for transfer surfaces, and replace them with a final specification for the low-transfer-height of medical diagnostic equipment used in the supine, prone, side-lying position and the seated position.

**DATES:** Send comments on or before July 24, 2023.

**ADDRESSES:** You may submit comments by any one of the following methods:

- *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments.
- *Email:* [docket@access-board.gov](mailto:docket@access-board.gov). Include docket number ATBCB-2023-0001 in the subject line of the message.
- *Mail:* Office of General Counsel, U.S. Access Board, 1331 F Street NW, Suite 1000, Washington, DC 20004-1111.

*Instructions:* All submissions must include the docket number (ATBCB-2023-0001) for this regulatory action. All comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided.

*Docket:* For access to the docket to read background documents or comments received, go to <https://www.regulations.gov/docket/ATBCB-2023-0001>.

**FOR FURTHER INFORMATION CONTACT:** Accessibility Specialist Bobby Stinnette, (202) 272-0021, [stinnette@access-board.gov](mailto:stinnette@access-board.gov); or Attorney Advisor Wendy Marshall, (202) 272-0043, [marshall@access-board.gov](mailto:marshall@access-board.gov).

#### SUPPLEMENTARY INFORMATION:

#### I. Legal Authority

Section 510 of the Rehabilitation Act charges the Access Board with developing and maintaining minimum

technical criteria to ensure that “medical diagnostic equipment used in or in conjunction with physician’s offices, dental offices, clinics, emergency rooms, hospitals, and other medical settings, is accessible to, and usable by, individuals with accessibility needs, and shall allow independent entry to, use of, and exit from the equipment by such individuals to the maximum extent possible.” 29 U.S.C. 794f. The Access Board’s minimum technical criteria do not impose any mandatory requirements on health care providers or medical device manufacturers. Agencies or entities may choose to issue regulations or adopt policies requiring health care providers to acquire accessible medical diagnostic equipment that complies with the technical criteria set forth by the Access Board, however, these agencies or entities would have to develop the appropriate scoping provisions to determine how to apply these technical criteria and would be free to strengthen or lessen the requirements as they so determine.

## II. Rulemaking History

In January 2017, the Board issued a final rule establishing technical criteria for medical diagnostic equipment. 82 FR 2810 (codified at 36 CFR part 1195). The Accessibility Standards for Medical Diagnostic Equipment (MDE Standards) set forth technical criteria to ensure that medical diagnostic equipment used by health care providers (such as examination tables, weight scales, and imaging equipment) is accessible to, and usable by, individuals with disabilities. One of the areas covered by the MDE Standards is the adjustability of transfer surfaces for certain types of medical diagnostic equipment. Specifically, for diagnostic equipment used by patients in a supine, prone, side-lying, or seated position. The MDE Standards currently specify the following adjustability requirements for transfer-height positions: a high height of 25 inches, a low height of 17–19 inches, and four unspecified intermediate heights between the high and low transfer height, which are separated by a minimum of one inch. 36 CFR part 1195, appendix, M301.2.1 & M302.2.2. Unlike the other transfer height specifications, the low transfer height was set as a temporary range with a five-year sunset provision. *Id.*

As explained in the preamble to the final rule, the Board took this approach because “there was insufficient information to designate a single minimum low height requirement at [that] time. Specifically, there [was] insufficient data on the extent to which

and how many individuals would benefit from a transfer height lower than 19 inches.” 82 FR at 2816. The Board explained that the MDE Advisory Committee was unable to come to an agreement on a single low height transfer position. In the MDE Advisory Committee Report, minority reports submitted by disability advocates and academics supported a minimum low height of 17 inches. *See* Minority Reports from Boston Center for Living Inc., National Network for ADA Centers, and Medical Diagnostic Equipment Advisory Committee, available at <https://www.regulations.gov/docket/ATBCB-2013-0009/document> (last visited April 5, 2023). These reports strongly supported a 17-inch low height, referencing the importance of accessible care, ensuring as many independent transfers as possible, and minimizing the risk of injury to both patient and provider if an assisted transfer is necessary. The reports asserted that the 17-inch low height provides “the greatest number of individuals the opportunity to transfer independently.” 82 FR 2810, 2815 (Jan. 9, 2017). The minority reports submitted by manufacturers supported a minimum low height of 19 inches. *See* Minority Reports from Hologic, Inc., Midmark Corporation, MITA Advisory Committee Members, and Recommendation of 19-inch Lower Adjustable Height as the Minimum Accessibility Standard (Joint Report), available at <https://www.regulations.gov/docket/ATBCB-2013-0009/document> (last visited April 5, 2023). The exam table manufacturers asserted that they would incur costs to comply with the 17-inch low height, but not similarly for the 19-inch low height. The manufacturers asserted that, at that time, there were no accessible diagnostic tables on the market that met a 17-inch low height requirement. *Id.*

Thus, the Board decided to specify a five-year sunset period to afford time for needed research and subsequent promulgation of a final specification for the low transfer height position. *Id.* On February 3, 2022, the Board issued a direct final rule extending the sunset provision until January 10, 2025. 87 FR 21089 (Apr. 11, 2022).

## III. Research on Transfer Height

The Access Board has supported multiple research projects over the years regarding the height of wheelchairs, independent transfer, and the height of the transfer surface. In 2010, the Board commissioned a research study, the *Anthropometry of Wheeled Mobility Project*, which was conducted by the University of Buffalo’s Center for Inclusive Design and Environmental

Access (IDEA). This research study focused on the anthropometry of 500 wheeled mobility device users in the United States and analyzed the seat height of manual chairs, power chairs, and scooters. The study explained that “keeping the height of a transfer surface close to the height of a wheelchair seat reduces the effort necessary to transfer and provides a safer environment, especially in bathing and toilet rooms.” pg. 89 available at <http://idea.ap.buffalo.edu/projects/anthropometry>. The study analyzed wheelchair seat heights and found that for manual chair users, the “5th–95th percentile range of wheelchair seat heights was 430mm–566mm (17 in.–22.3 in).” *Id.* at 85. The study also opined that in applying these findings, if the purpose is to accommodate the 5th percentile occupied manual chair user seat height and the 95th percentile scooter user height, a range of 430 mm–635 mm (17 in.–25 in.) is needed. *Id.*

In November 2015, a final report was issued for a study commissioned by the Access Board on *Independent Wheelchair Transfers in the Built Environment: How Transfers Setup Impacts Performance* conducted by Human Engineering Research Laboratories (HERL). While this study focused on transfers in the built environment, including clear floor space dimensions, impact of grab bars, and finding a fixed height that can accommodate the largest percentage of users, it provides some information that is pertinent to the issue of an appropriate adjustable height range for independent transfers in a medical setting. In this study, the researchers explained that for wheelchair users, “transfers are required to perform essential tasks of daily living such as bathing, toileting, and driving. On average, transfers are performed between 11 and 20 times per day. Independent transfers are ranked among the most strenuous tasks of daily living because of the high mechanical demands they place on upper limbs. The built environment can either increase or decrease the effort required to perform independent transfers. Environments that require more effort to transfer ultimately limit the number of WMD users who can access them.” *Independent Wheelchair Transfers in the Built Environment: How Transfer Setup Impacts Performance Phase 2: Final Report*, pg. 8, available at <https://www.herl.pitt.edu/ab/ABTransferSetupReportPhaseII.pdf> (last accessed April 5, 2023). In this study, all participants were able to complete a level transfer, meaning they successfully transferred

from their wheeled mobility device to a transfer surface that was level with the seat of their chair. *Id.* at 49. The researchers noted that “transfers are easiest and safest to obtain when they are as close to level as possible”. *Id.* The participants of this study had wheelchair seat heights which ranged from 19 inches minimum to 27.5 inches maximum. Based on the study participants, this study recommended an adjustable platform height from 19 to 27.5 inches as “all participants can make a level transfer.” *Id.* at 49.

In 2021, the Access Board commissioned a secondary analysis of occupied seat heights based on the 2010 *Anthropometry of Wheeled Mobility Project* to address some of the concerns raised about the original study, specifically that the participants were not statistically representative of the wheelchair-user community. This new analysis took the “data on occupied seat heights for manual and powered wheelchair users (N= 466 of 500 users in the AWM database) [and] statistically resampled to create virtual samples that were proportionally representative of the total population of wheelchair users in the U.S. in terms of device type (manual vs. powered), gender (men vs. women) and age category (younger 18–64 vs. older 65+). *Analysis of Low Wheelchair Seat Heights and Transfer Surfaces for Medical Diagnostic Equipment Final Report*, Clive D’Souza, available at <https://www.access-board.gov/research/human/wheelchair-seat-height/>. The proportions were obtained from the 1994–97 National Health Interview Survey on Disability (NHIS–D) study findings presented by LaPlante and Kay (2010).”<sup>1</sup> In the Final Report, Dr. D’Souza explains that the “occupied seat height of wheeled mobility devices is important for determining the necessary height ranges for adjustable transfer surfaces of MDE. Generally, maintaining a transfer surface at the same height as the wheelchair seat reduces the effort needed to transfer, since occupants would not have to lift their body weight to make up the difference between the two surface heights, in one direction or the other.” *Id.*

In his final report, Dr. D’Souza used demographically representative virtual samples to determine the proportion of manual and power wheelchair users who would be excluded from a level transfer if the lower height limit of the MDE transfer surfaces were set to 17 inches, 18 inches, or 19 inches. Dr.

D’Souza’s analysis found that at a 17-inch low transfer height, 4.5 percent of wheelchair users would be excluded; at an 18-inch low transfer height, 21 percent of wheelchair users would be excluded; and at a 19-inch low transfer height, 43 percent of wheelchair users would be excluded. *Id.* Additionally, Dr. D’Souza conducted further analysis to account for the predictable increase in power wheelchair users since the last available survey of the total population of wheelchair users in the United States in terms of device type, gender, and age was last conducted in 1994–1997. *Id.* Dr. D’Souza accounted for a 10 percent increase and a 20 percent increase in power wheelchair use. This increase in power wheelchair proportions indicated “that the percent excluded would show a small decrease (*i.e.*, increased accommodation) at intermediate values (*e.g.*, at 19 inches, a 10% increase in powered wheelchair proportions decreased the percent excluded from 42% to 39%). However, at lower heights such as 17 inches, there is no substantial change in percentiles, since most wheelchair users, regardless of device type, are already accommodated (*i.e.*, at 17 in., a 10% increase in powered wheelchair proportions decreased the percent excluded from about 4.5% to 4%).” Dr. D’Souza opined that setting the low transfer height requirement “closer to the tails of the distribution (*e.g.*, 17 or 17.5 in.)” would continue to ensure a level transfer despite future changes in population demographics. *Id.*

#### IV. Public Meeting and Comments on Research Study

On May 12, 2022, after the publication of the final report *Analysis of Low Wheelchair Seat Heights and Transfer Surfaces for Medical Diagnostic Equipment*, the Access Board held a public meeting to obtain further information on the appropriate low-height specification of transfer surfaces for medical diagnostic equipment. The Access Board also invited public comment on the findings in Dr. D’Souza’s final report and any new information regarding the low transfer height provision, since the issuance of the MDE Final Rule in 2017.<sup>2</sup> The Access Board had disability rights organizations, members of the public, and a manufacturer attend the public meeting and provide comment. Most of those commenters also provided written comments. In all, the Access Board

received 107 comments in response to its request. Available at <https://www.regulations.gov/docket/ATBCB-2022-0002/comments>.

Of those comments, 12 were from disability rights organizations. These organizations unanimously support adoption of 17 inches as the low transfer height specification. Specifically, multiple organizations point out the importance of ensuring that the greatest number of people with disabilities can access medical services by being able to transfer onto the exam table. Additionally, one organization in the state of Mississippi asserts that it disagrees with the premise that more people are moving to power wheelchairs. The organization claims that the majority of users it encounters use manual wheelchairs and that a significant number of the population would require the 17-inch low height to be able to transfer to MDE. See Comment ATBCB–2022–0002–0028, available at <https://www.regulations.gov/comment/ATBCB-2022-0002-0028>.

The Access Board received approximately 90 comments from members of the public, who almost unanimously supported a low height of 17 inches. Many commenters explained the continued struggle to obtain proper medical care and diagnosis as a result of inaccessible medical diagnostic equipment. A few commenters explained their preference for higher height MDE between 18 to 25 inches to allow level transfer with their specific wheelchair, but most of those commenters also highlighted the importance of the lower specification of 17 inches to accommodate those in wheelchairs that sit lower to the ground. The Board also received two comments from medical professionals, one recommending 17 inches to accommodate patients with specific medical conditions and the other recommending a low height of 18 inches.

Finally, the Board received two comments from manufacturers of exam tables, both supporting a 19-inch low height for MDE transfer surfaces. Both of these manufacturers also served on the MDE Advisory Committee and filed minority reports to the Advisory Committee Report supporting a 19-inch low height specification. In its public comment, one manufacturer explains that in the U.S. “approximately 62 percent of physicians, hospitals, and other health care providers use examination and procedures tables with a 32-inch fixed height. Industry commonly refers to these tables as ‘box tables.’ These tables provide an often-

<sup>1</sup> The 1994–97 National Health Interview Survey on disability is the most recent survey on wheelchair use within the United States.

<sup>2</sup> Comments in response to the public meeting are available on Docket ATBCB–2022–0002, available at <https://www.regulations.gov/docket/ATBCB-2022-0002/comments>.

insurmountable barrier to health care for people with accessibility needs. Since 2001, the number of adjustable-height tables has steadily increased from 5% but continues to represent a minority of examination and procedure tables in the United States with cost being one of the factors that limits full adoption.” See Comment ATBCB–2022–0002–0073, available at <https://www.regulations.gov/comment/ATBCB-2022-0002-0073>. This manufacturer goes on to explain that while it makes an accessible exam table that has a low transfer height of 15.5 inches, it still supports a low-height specification for MDE of 19 inches, as it considers the lower exam table to be cost prohibitive. Additionally, if a specification lower than 19 inches is adopted, then the adjustable tables in exam rooms currently would be deemed inaccessible. *Id.* Concerning the latter point, the effect of the proposed change in this NPRM on existing MDE will depend on if and in what manner enforcement authorities decide to adopt them. For example, agencies may decide to delay the effective date or implementation date of any rules they adopt, they may deem MDE acquired prior to their rulemaking or this rulemaking to be “accessible” if it complied with the low transfer height range currently provided for, or it may make changes to the Access board’s technical criteria during adoption, such as by continuing to allow for a range of low transfer heights between 17 and 19 inches.

Another manufacturer that also strongly supports a low-height-specification of 19 inches asserts that lowering the height to 17 inches would be cost prohibitive, would prevent the table from raising to a level comfortable for the medical professional examining the patient, and would cause a reduction in length of the table once reclined into a supine position. The commenter also raises concerns about the methodology behind our low height specification determination, asserting that the Board should be conducting a study to determine the heights to which people in wheelchairs can transfer, instead of attempting to provide for a level transfer by requiring MDE that aligns with the patient’s wheeled mobility device. This manufacturer also raises concerns with the methodology of the original 2010 Study, in measuring to the seat of the wheelchair at the back, instead of measuring to the front of the wheelchair. Finally, the comment includes an opinion from Don Wardell, a professor of operations management from the University of Utah. Dr. Wardell

raises three concerns about Dr. D’Souza’s statistical resampling: (1) that the data set used to derive the proportions of people using powered vs. manual wheelchairs is old; (2) that there is not sufficient evidence to assert that a percentage of the population would be excluded if not provided a level transfer, since the ability to transfer from one surface height to another involves many assumptions regarding individual abilities and methods as well as equipment characteristics; and (3) that the sensitivity analysis is inaccurate as there is no date or new information to suggest that the height of manual wheelchairs today are the same as they were in 1994.

As to Dr. Wardell’s first and third concerns, the 1994–97 data from the National Health Interview Survey on Disability (NHIS–D) was only used to determine the proportions of the wheelchair user population by gender, use of powered vs. manual wheelchairs, and age. The heights of wheelchairs were from data collected in the *Anthropometry of Wheeled Mobility Project* from 2010. While we do understand the concern with using the statistics of wheelchair users in the United States from 1994–97, this is the most recent collection of data by the Center for Disease Control (CDC), and the most recent sufficient data the Board and Dr. D’Souza were able to obtain.

*Question 1.* The Board seeks additional information about more recent available studies regarding the population of wheelchair users in the United States, by gender, age, and device type.

Regarding the second assertion about level transfer, much of the research conducted on transfer to and from a mobility device has found that a level transfer requires less effort or upper body strength and has the highest success rate. In the *Independent Wheelchair Transfers in the Built Environment: How Transfers Setup Impacts Performance* study mentioned above, 100 percent of the participants that were capable of independent transfer could effectuate a transfer to a surface that is level with the height of their wheelchair. Available at <https://www.herl.pitt.edu/ab/ABTransferSetupReportPhaseII.pdf>. (last visited April 5, 2023). The ability to transfer vertically, on the other hand, is difficult to determine, as it differs among individuals depending on factors such as their disability, upper body strength, physical body make up, weight, etc. *Id.* Additionally, the same study references multiple journal articles which explain that most individuals in a wheelchair transfer many times per day, and their

capabilities may be different depending on the number of times they have transferred on a particular day. *Id.*

Patient and provider safety during transfer is another reason the Board believes that an independent level transfer is imperative. A level transfer provides less risk of injury to both the patient and provider by preventing the need for the patient to transfer vertically. Wheelchair related trip and falls are a yearly occurrence in the United States and can result in injury, decreased independence and affect the quality of life of someone who uses a wheelchair. D. Gavin-Dreschnack, A. Nelson, S. Fitzgerald, J. Harrow, A. Sanchez-Anguiano, S. Ahmed, and G. Powell-Cope, “Wheelchair-related Falls: Current Evidence and Directors for Improved Quality Care”, *Journal of Nursing Care Quality* 20, no. 2 (2005) 119. It is estimated that in the U.S. there is an average of 36, 559 nonfatal wheelchair related accidents each year that require emergency room visits. *Id.* Transfers to and from a wheelchair are one of five hazardous conditions that give rise to trips, falls, and fall-related injuries. *Id.* Specifically, this study showed that injuries can occur to the patient and the caregiver when an independent transfer is not possible and the caregiver is assisting with the transfer. *Id.* at 122. “Tripping and falling are the most common form of incidents, accounting for 68.5% of fatal accidents and 73.2% of nonfatal accidents. . . among elderly long-term care residents, the majority of wheelchair-related injuries appeared to be connected with failed attempts to independently transfer into or out of a wheelchair and leaning forward.” *Id.* at 123.

Additionally, in a recent report by the National Council on Disability (NCD) entitled *Enforceable Accessible Medical Equipment Standards NCD* explains that a “growing body of research has demonstrated a relationship between musculoskeletal injuries, workers compensation claims, and safe patient handling, due in part to the overreliance on manual transfers to inaccessible equipment. Inaccessible equipment leads health care workers to use awkward body posture and poor ergonomics that heighten the risk of injury. In a vicious cycle, musculoskeletal injuries among healthcare workers can also create a greater risk of injury to patients” during transfer. National Council on Disability, *Enforceable Accessible Medical Equipment Standards: A Necessary Means to Address the Health Care Needs of People with Mobility Disabilities*, available at <https://ncd.gov/>

*sites/default/files/Documents/NCD\_Medical\_Equipment\_Report\_508.pdf* (last visited Apr. 5, 2023). Based on the risk of falls, injuries to patients and providers, the success of transfer at a level transfer, and the exertion needed for vertical transfer, the Board has determined that providing for a level transfer height for medical diagnostic equipment whenever possible ensures that almost everyone, if not everyone, who is capable of an independent transfer would be able to transfer to this adjustable height surface.

#### V. Current Status of Accessible Medical Diagnostic Equipment

The Access Board informally reviewed publicly available information on current medical diagnostic equipment, specifically examination tables and chairs, to discern the current low transfer height and cost of adjustable MDE. The Board reviewed information on individual products to determine what low height the product could achieve, it did not undertake a systematic review of every feature of each product to assess potential compliance with the MDE Standards. The level of specificity of publicly available information regarding each product varies by manufacturer and product line, and it would have been impossible to compare every feature of every product. Further, such a robust, systematic study would be inappropriate at this point, given that the MDE Standards have no mandatory application. For most of the products, the Board was able to find publicly available price information. A number of online MDE suppliers listed both a manufacturer suggested retail price (MSRP) and discounted prices. As the actual price paid for a certain piece of medical equipment can vary widely depending on the supplier from which it is purchased and the type of contract a purchaser may have, the Access Board is focusing on the MSRP. The prices reported here are likely higher than the actual prices the MDE purchasers would pay, because purchases typically pay less than MSRP, due to special sale, volume discount, or other reasons. The information the Board collected, including links to the public websites where the Access Board obtained the product and price information is available in the *2022 Review of MDE Low Heights and MSRP*. See *Access Board Review of MDE Low Height and MSRP*, dated Dec. 5, 2022, available at <https://www.regulations.gov/docket/ATBCB-2023-0001>.

The Board relied on the suppliers' and manufactures' websites for its information collection, including

photographs, schematics, and other specification lists and descriptions provided by the manufacturer or supplier online. The Board did not directly contact any manufacturers or suppliers to discuss their products.

#### Adjustable Height Exam Tables

The Access Board reviewed 28 adjustable exam tables currently on the market, 21 of which meet the current requirement with low heights within the 17-to-19-inch range. Of these 21 exam tables, five have a low height of 19 inches and an MSRP range of \$5,923.01 to \$12,742.00, or an average cost of \$8,290.40; 16 exam tables have a low height of 18 inches and a MSRP range of \$2,127.08 to \$14,144, or an average cost of \$4,635.11; and one exam table has a low height of 15.5 inches and a MSRP of \$10,644. The other seven exam tables have low heights between 20 to 27 inches, falling outside of the current low transfer height requirement and have a MSRP range of \$3,114.82 to \$6,699.42, or an average cost of \$4,173.33. The Board also reviewed 18 fixed heights exam tables with a height range of 27 to 33 inches and a MSRP range of \$548.90 to \$3,966.38, with an average cost of \$1,505.07.

In comparing the average MSRP of these adjustable exam tables, we found the difference between the one exam table that currently reaches below 17 inches and the average cost of exam tables in the 18-to-19-inch range to be a \$5,138.58 difference. It would be an additional \$1,332 if comparing the 15.5-inch exam table, to exam tables that were adjustable but outside of the current MDE Standard low height range.

In comparing the costs of these exam tables it is important to note that the Board did not evaluate the exam tables to determine if they comply with the other provisions of the MDE Standards, and given the large range of cost for exam tables within the 18-to-19-inch range (\$2,127.08 to \$14,144), it is difficult to ascertain the actual specific cost of moving from a low height range of 17 to 19 inches to a single specification of 17 inches. Additionally, the Board believes that with this NPRM, other manufacturers will produce tables that reach a low height of 17 inches, which will cause the cost to decrease, as we saw an increase in lower exam table transfer heights since the promulgation of the original MDE Standards in 2017.

#### Adjustable Height Exam Chairs

The Board also reviewed specialized adjustable height exam chairs. Specifically, Obstetrics and Gynecological (OB-GYN) chairs, phlebotomy chairs, podiatry chairs,

optometry/ophthalmology chairs, and dental chairs. None of the chairs other than the dental chairs met the requirement for a 17-inch low transfer height. Consequently, for those chairs, we were not able to determine the approximate additional cost per unit that would be required to comply with this proposed rule.

The Access Board reviewed three OB/GYN chairs, one of which has a low height of 22 inches and a MSRP of \$3,450, and two which have a low height of 18 inches and 18.5 inches and a MSRP range of \$3,972.67 to \$5,470, with an average cost of \$4,721.34. The Board also reviewed six fixed height OB-GYN chairs, finding a height range of 31 to 33 inches and a MSRP range of \$543.82 to \$2,624.08, with an average cost of \$1,554.54.

The Board reviewed 12 phlebotomy chairs, two of which have low heights of 18 and 18.5 inches with a MSRP range of \$1,199 to \$2,249, and an average cost of \$1,724. The other ten phlebotomy chairs have low heights from 20.25 inches to 22 inches and a MSRP range of \$1,474 to \$2,959, with an average cost of \$2,056.4. The Board also reviewed 16 fixed height phlebotomy chairs, finding a height range from 18 to 26 inches with a MSRP range of \$500 to \$3,015.49, with an average cost of \$1,432.98.

All 16 dental chairs that the Access Board reviewed have a low height at 19 inches or lower. Three of the chairs have a low height from 18 to 19 inches; however the Board was only able to obtain the cost for one of these chairs, which is a refurbished price at \$3,568. The other 13 chairs have a low height from 13.5 inches to 17 inches, with five having a low height below 14 inches. The Board was only able to ascertain an MSRP for six of these 13 chairs, which have an MSRP range from \$5,598.00 to \$9,490, with an average cost of \$7,492.95. It is difficult to compare costs between these sets of dental chairs, as the only cost information the Board was able to obtain for a chair at 18 inches was a refurbished cost. However, based on the fact that the vast majority of dental chairs low height was well below 17 inches and the other differences in these chairs, low height doesn't appear to be a significant driver of cost difference for dental chairs.

The Access Board reviewed five podiatry chairs, four of which have a low height between 18 and 19 inches. For three of these podiatry chairs the Board was able to ascertain a MSRP range of \$8,063 to \$15,241.38,<sup>3</sup> and an

<sup>3</sup> The Board was unable to obtain a MSRP for the UMF Power Podiatry Chair, Model number 5015.



average cost of \$11,534.49. The other podiatry chair has a low height of 24 inches and a MSRP of \$4,995.

Finally, the Board reviewed 11 optometry/ophthalmology chairs, all of which fall outside the current low height range. The seat height of these chairs ranged from 19.75 to 23 inches; the MSRP range was from \$4,200 to \$10,352; and the average cost was \$6,073. However, the Board notes that since the original rulemaking a new type of optometry/ophthalmology chair has entered the market, which allows the examination chair to spin out of the way to permit patients in wheelchairs to move up to and use the equipment while remaining in their personal chairs. This examination chair with the accompanying stand for the equipment is \$8,900, the chair alone is \$4,650. This specific chair also provides a headrest, movable armrests and a chair that moves up and down and reclines, but the Board was unable to determine the low height. The Board acknowledges that for examinations where transfer is not necessary for a complete and accurate examination, such as an eye examination, there is a benefit to allowing patients to remain in their wheelchairs and avoid any potential for injury that accompanies transfer. In this situation the equipment would also need to meet M303, the requirements for diagnostic equipment used by patients seated in a wheelchair. Enforcement authorities would need to address applicable specifications in the scoping of an enforceable rule for dual use equipment that allows patients either to remain in their wheelchairs or to transfer to the examination chair. However, one possibility is to exempt MDE from the low transfer height requirement where transfer is not required for examination.

## VI. Low Transfer Height

Obtaining medical diagnostic care is imperative for everyone, including people with disabilities, and the first step of obtaining adequate medical care is being able to transfer onto the MDE for examination. Historically, MDE has been, and continues to be, inaccessible to the vast majority of people in wheelchairs, as commenters have noted throughout the original MDE rulemaking, inaccessible equipment can lead to misdiagnosis and inability to access care or even basic exams. In response to the Board's call for comments on Dr. D'Souza's Report, a manufacturer of examination tables explained that over 60 percent of the examination tables in exam rooms today still have a fixed height of 32-inches. The Board determined early on in the

original MDE rulemaking process that specifying an adjustable height transfer surface with at least six different height options (high height, low height, and 4 intermediate heights) would best be able to encompass the largest percentage of wheelchair users that are able to independently transfer. While we know some users are unable to independently transfer, those who are able should not be hindered by the height of the MDE. In this NPRM, the Board has determined that the low height of this adjustable height transfer surface should be 17 inches.

Multiple commenters, supportive of both 17 and 19 inches as a low transfer height, reference the transfer heights for fixtures in the built environment in the Board's Americans with Disabilities Act Accessibility Guidelines (36 CFR part 1191). However, the low transfer height specification for MDE is uniquely different from the specifications for transfer heights that the Access Board has instituted for the built environment. In the built environment, the Board has required that fixtures such as water closets (toilets), shower and bathtub seats be installed within a range of 17 to 19 inches for the height of these fixed elements to provide access for transfer to people with disabilities. See 36 CFR part 1191, appendix D, 604. This is not comparable to MDE, as these fixed elements only provide one height for transfer, so in determining that height, the Board had to specify a range for a static height that would effectuate transfer for the majority of users. With MDE and the ability to have 6 different transfer points, the goal is to accommodate all people with disabilities who are able to effectuate an independent transfer. As explained above in Dr. D'Souza's Report, if the Board was to adopt a low height of 19 inches, then between 39 to 42 percent of wheelchair users would not be able to effectuate a level transfer. However, by providing a low height of 17 inches, with at least five other heights between 17 and 25 inches, the adjustable height transfer surface should be able to accommodate at least 95 percent of wheelchair users who can independently transfer.

When the Board initially undertook this rulemaking, there was no MDE on the market with a height lower than 19 inches, and most of what was on the market was well above 19 inches. See Final Regulatory Assessment, (December 2016) available at <https://www.access-board.gov/files/mde/mde-assessment.pdf>. Since 2016, the market has changed. More examination tables and chairs provide a low-height within the current range of 17 to 19 inches,

many in the 18-to-19-inch range. There is also an examination table currently on the market that provides a 15.5-inch low transfer height. Finally, the vast majority of dental chairs on the market have a low transfer height at or below 17 inches.

Based on the findings of Dr. D'Souza's report and the other research discussed herein, as well as the changes to the market since the issuance of the MDE Standards in 2017, the Board has decided to propose a low transfer height of 17 inches. The Board expects that the market will continue to progress to low transfer heights and believes that at the time of any adoption by any enforcement authorities if a specific exception is needed for a specific regulated party, that enforcement authority could do so at that time. Additionally, enforcement authorities could address any lack of available equipment on the market by utilizing the exception already provided within the MDE Standards (M201.2) or could propose a delayed or phased-in effective date for the low height transfer position.

## VII. Regulatory Process Matters

### A. Regulatory Planning and Review (Executive Orders 12866 and 13563)

The Access Board has examined the impact of this notice of proposed rulemaking under Executive Orders 12866 and 13563. These Executive Orders direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). This NPRM is a significant regulatory action as it raises a novel legal or policy issue within the meaning of Executive Order 12866. See E.O. 12866 § 3(f), 58 FR 51735 (Oct. 4, 1993) (defining "significant regulatory action" as, among other things, regulatory actions that has an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities, or raise novel legal or policy issues).

This proposed rule does not impose any incremental costs. Unlike many of the Access Board's other rulemakings that provide minimum guidelines which enforcement agencies must adopt as minimum standards for accessibility, Section 510 of the Rehabilitation Act does not require any enforcement



agency to adopt these technical criteria as minimum standards or at all. Additionally, the Access Board has not provided any scoping provisions, as the Board does not have the authority to determine who should comply with these provisions or how many of each particular type of medical diagnostic equipment would need to comply in any given facility. Therefore, because the MDE Standards are more akin to technical guidance, even if they are subsequently adopted by another Federal agency, that agency would have the ability to make changes to any part of the technical criteria as deemed necessary or appropriate (e.g., as the result of conducting a cost/benefit analysis) and would be required to undertake its own regulatory assessment before issuing enforceable Standards. Finally, this NPRM is restricted to one provision regarding the low transfer height, which was already set at the range of 17 to 19 inches, in this NPRM we are proposing to change that to a single specification of 17 inches. In the final regulatory impact analysis (FRIA 2017) for the MDE Standards issued in 2017, the Board explained that it was unable to estimate what costs (if any) manufacturers, providers, or others would incur as a result of the rule, or what level of social benefits would be accrued. Available at <https://www.access-board.gov/files/mde/mde-assessment.pdf>. Instead, that FRIA provided a brief overview of commonly used MDE in the current U.S. market to give a sense of how the technical requirements in the MDE Standards were or were not met among products being sold. *Id.* The FRIA 2017 analyzed the potential costs and benefits of the MDE Standards from a qualitative perspective. The change from a range of 17 to 19 inches to one specification would not have changed the analysis in the original FRIA, nor does the Access Board believe that finalizing this provision with a specification within the already proposed range would have an annual effect on the economy of \$100 million.

The benefits of providing accessible MDE were well documented throughout the original MDE rulemaking process, including the extensive explanation in the Final Regulatory Analysis (December 2016). Available at <https://www.access-board.gov/files/mde/mde-assessment.pdf>. These arguments continue to be valid in 2022, as noted above, 60 percent of examination rooms still provide only a fixed-height table which is completely inaccessible to a person in a wheelchair.

In 2020, the National Council on Disability (NCD) issued a report titled

Enforceable Accessible Medical Equipment Standards—A Necessary Means to Address the Health Care Needs of People with Mobility Disabilities. Available at <https://ncd.gov/publications/2021/enforceable-accessible-medical-equipment-standards>. In this Report, NCD describes the difficulty people with mobility disabilities still face in trying to access medical care. NCD explains that “[a]dults with physical disabilities are at higher risk of foregoing or delaying necessary care and having unmet medical, dental, and prescription needs compared to adults without disabilities. Lack of timely access to primary and preventive care can result in the development of chronic and secondary conditions as well as exacerbation of the original disability condition itself, resulting in poorer health outcomes. Of the 61 million people with disabilities in the United States, more than 20 million people over the age of 18 years of age have a disability that limits their functional mobility; this can pose challenges to accessing standard medical diagnostic equipment.” *Id.* at 13. Further, NCD explains that “[i]f patients are not transferred to an examination table, when it is clinically appropriate, it may be difficult if not impossible to conduct a comprehensive examination, which may lead to missed or delayed diagnosis.” *Id.* at 17. NCD explains, and the Access Board concurs, that accessible MDE not only benefits the quality of care of patients with disabilities, but also impacts “the occupational health and safety of health care workers, especially nurses and nursing assistants.” *Id.* at 19. NCD notes that research is showing a relationship between musculoskeletal injuries and workers’ compensation claims for health care professionals and safe patient handling, “due in part to the overreliance on manual transfers to inaccessible equipment.” *Id.*

While there are many provisions within the MDE Standards which address all aspects of the equipment, including the requirement for the ability to use a lift with the MDE (M301.4), to ensure that a person is able to be examined on the diagnostic equipment, it is imperative that the low transfer height selected provide access to independent transfers to the largest percentage of people who use wheeled mobility devices that are capable of such a transfer. Independent transfer is safer for the patient and provides a safer environment for the health care provider in reducing the risk of injury during an assisted transfer.

As explained above in Dr. D’Souza’s Report, if the Board was to adopt a low

transfer height of 19-inches, then between 39 to 42 percent of wheelchair users would not be able to effectuate a level transfer. However, by requiring a low height of 17 inches and high height of 25 inches and at least four other intermediate heights in between, the adjustable height transfer surface should be accessible to and usable by almost all (95 percent) of wheelchair users that can independently transfer.

The MDE FRIA 2017 reviewed the overall cost of MDE on the market but did not address the incremental cost of each provision. During our information collection for this NPRM, we again looked at the overall cost of the MDE and also assessed the low transfer heights of the respective MDE; however there were other differences in the MDE, beyond just a lower transfer height, so we are unable to attribute all of the cost difference to simply a lower transfer height. For examination tables, we saw a wide range in the adjustable table market, for tables with a low height of 18 to 19 inches, we saw a MSRP range of \$2,127 to \$14,144. Currently, on the market there is one examination table which reaches a low transfer height below 17 inches, the Midmark 626 Barrier-Free examination chair, which reaches a low height of 15.5 inches and has an MSRP of \$10,644. Over 75 percent of the adjustable examination tables the Access Board reviewed have a low height of 18 to 19 inches, and 50 percent of those are at 18 inches. Currently, the Board is unable to determine the incremental cost for these manufacturers to lower the low height of the transfer surface from 18 to 17 inches or from 19 to 17 inches.

*Question 2.* The Board seeks additional information regarding the estimated cost of modifying current examination tables that have a low transfer height of 18 or 19 inches in order to comply with the 17-inch low transfer height requirement, or, if it is not possible to modify existing MDE, the difference in the cost of manufacturing MDE with a low transfer height of 18 or 19 inches and the cost of manufacturing MDE that meets the 17-inch low transfer height.

*Question 3.* The Board seeks additional information regarding the estimated cost of modifying current examination chairs, specifically phlebotomy, OB–GYN, podiatry, and optometry/ophthalmology chairs, that have a low transfer height of 18 or 19 inches in order to comply with the 17-inch low transfer height requirement, or, if it is not possible to modify existing MDE, the difference in the cost of manufacturing MDE with a low transfer height of 18 or 19 inches and the cost

of manufacturing MDE that meets the 17-inch low transfer height. The Board also seeks information about whether transfer to a phlebotomy chair would be necessary, or whether procedures can be performed on patients while they remain in their wheelchairs.

*Question 4.* How much time would manufacturers need to be able to develop a sufficient number of examination chairs (other than dental chairs) and tables with a minimum low transfer height of 17 inches to meet market demand? How long will it take the market to adjust so that prices for examination tables and chairs with a minimum low transfer height of 17 inches are comparable to those that are 18 and 19 inches? Does this length of time, if any, vary depending on the specialty in which the equipment is used?

*Question 5.* Are there other resources, data, or information the Board should consider with respect to its proposed minimum low transfer height requirement of 17 inches?

The Board asserts that the benefits provided to the millions of Americans that use mobility devices and medical professionals and caregivers assisting those individuals transfer outweighs the potential costs of requiring a low transfer height of 17 inches for medical diagnostic equipment. Specifically, the Board finds that there is a significant need for accessible medical diagnostic equipment and that the safety of both the patient and caregiver are affected by ensuring as many individuals as possible that are capable of independent transfer are provided the opportunity to effectuate that transfer with a height of medical diagnostic equipment that is level to their current mobility device. These benefits, which include the health care cost savings from preventing injuries to the patient and health care worker outweigh the costs to comply with the proposed 17-inch low height provision, especially considering the significant increase of MDE that currently attains a lower transfer height than even five years ago; However, as noted above, the Access Board is unaware of who would incur these potential costs and to what extent, based on the structure of this rulemaking. Additionally, the Access Board expects that when rulemaking agencies propose to enforce the MDE Standards, they will carry out regulatory assessments that provide specific cost and benefit estimates relevant to their rules.

#### B. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) requires Federal agencies to analyze the impact of regulatory actions on small

entities, unless an agency certifies that the rule will not have a significant impact on a substantial number of small entities. 5 U.S.C. 604, 605 (b). The MDE Standards do not impose any mandatory requirements on any entity, including small entities. Therefore, we did not prepare a final regulatory flexibility analysis.

#### C. Federalism (Executive Order 13132)

The Access Board has evaluated this notice of proposed rulemaking in accordance with the principles and criteria set forth in Executive Order 13132. We have determined that this action will not have a substantial direct effect on the States, the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, does not have federalism implications.

#### D. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (codified at 2 U.S.C. 1531 *et seq.*) (“UMRA”) generally requires that Federal agencies assess the effects of their discretionary regulatory actions that may result in the expenditure of \$100 million (adjusted for inflation) or more in any one year by the private sector, or by state, local, and tribal governments in the aggregate. The MDE standards do not impose any mandatory requirements on state, local, or tribal governments or the private sector. Therefore, the Unfunded Mandates Reform Act does not apply.

#### E. Paperwork Reduction Act

Under the Paperwork Reduction Act (PRA), Federal agencies are generally prohibited from conducting or sponsoring a “collection of information: as defined by the PRA, absent OMB approval. See 44 U.S.C. 3507 *et seq.* The MDE Standards do not impose any new or revised collections of information within the meaning of the PRA.

#### F. Congressional Review Act

This notice of proposed rulemaking is not a major rule within the meaning of the Congressional Review Act (5 U.S.C. 801 *et seq.*)

#### List of Subjects in 36 CFR Part 1195

Health care, Individuals with disabilities, Medical devices.

For the reasons stated in the preamble, and under the authority of 29 U.S.C. 794f, the Board proposes to amend 36 CFR part 1195 as follows:

### PART 1195—STANDARDS FOR ACCESSIBLE MEDICAL DIAGNOSTIC EQUIPMENT

■ 1. The authority citation for part 1195 continues to read as follows:

**Authority:** 29 U.S.C. 794f.

- 2. Amend appendix to part 1195 by:
- a. Revising M301.2.1;
  - b. Removing M301.2.2;
  - c. Revising M302.2.1; and
  - d. Removing M302.2.2.

The revisions read as follows:

#### Appendix to Part 1195—Standards for Accessible Medical Diagnostic Equipment

\* \* \* \* \*

M301 Diagnostic Equipment Used by Patients in Supine, Prone, or Side-Lying Position

\* \* \* \* \*

M301.2.1 \* \* \*

A. A low transfer position at a height of 17 inches (430 mm);

\* \* \* \* \*

M302 Diagnostic Equipment Used by Patients in Seated Position

M302.2.1 \* \* \*

A. A low transfer position at a height of 17 inches (430 mm);

\* \* \* \* \*

Approved by vote of the Access Board.

**Christopher Kuczynski,**  
General Counsel.

[FR Doc. 2023–10827 Filed 5–22–23; 8:45 am]

BILLING CODE 8150–01–P

## DEPARTMENT OF COMMERCE

### Patent and Trademark Office

#### 37 CFR Part 42

[Docket No.: PTO–P–2023–0024]

#### Request for Comments Regarding the Motion To Amend Pilot Program and Rules of Practice To Allocate the Burdens of Persuasion on Motions To Amend in Trial Proceedings Before the Patent Trial and Appeal Board

**AGENCY:** United States Patent and Trademark Office, Commerce.

**ACTION:** Request for comments.

**SUMMARY:** The United States Patent and Trademark Office (USPTO or Office) currently implements a pilot program for motion to amend (MTA) practice and procedures in trial proceedings under the America Invents Act (AIA) before the Patent Trial and Appeal Board (PTAB or Board). The USPTO seeks public comments on whether the MTA Pilot Program’s procedures should be

made permanent, and if so, whether any modifications would be beneficial. Additionally, the USPTO previously issued rulemaking covering the allocation of the burdens of persuasion in MTA proceedings. The USPTO seeks public input on the practical effects of the rules on the parties and AIA proceedings, and whether modifications to the rules, or additional guidance on implementing the rules, would be beneficial. Lastly, the USPTO seeks input on whether the Board should have broader authority to raise sua sponte grounds in the MTA process.

**DATES:** *Comment Deadline Date:* To ensure consideration, commenters must submit written comments on or before July 24, 2023.

**ADDRESSES:** For reasons of government efficiency, comments must be submitted through the Federal eRulemaking Portal at [www.regulations.gov](http://www.regulations.gov). To submit comments via the portal, enter docket number PTO-P-2023-0024 on the homepage and click “Search.” The site will provide a search results page listing all documents associated with this docket. Find a reference to this proposed rulemaking and click on the “Comment” icon, complete the required fields, and enter or attach your comments. Attachments to electronic comments will be accepted in ADOBE® portable document format (PDF) or MICROSOFT WORD® format. Because comments will be made available for public inspection, information that the submitter does not desire to make public, such as an address or phone number, should not be included in the comments.

Visit the Federal eRulemaking Portal ([www.regulations.gov](http://www.regulations.gov)) for additional instructions on providing comments via the portal. If electronic submission of comments is not feasible due to a lack of access to a computer and/or the internet, please contact the USPTO using the contact information below for special instructions regarding how to submit comments by mail or by hand delivery, based on the public’s ability to obtain access to USPTO facilities at the time.

**FOR FURTHER INFORMATION CONTACT:** Miriam L. Quinn, Acting Senior Lead Administrative Patent Judge; or Melissa Haapala, Vice Chief Administrative Patent Judge; at 571-272-9797 ([Miriam.Quinn@uspto.gov](mailto:Miriam.Quinn@uspto.gov) or [Melissa.Haapala@uspto.gov](mailto:Melissa.Haapala@uspto.gov), respectively).

**SUPPLEMENTARY INFORMATION:**

## Background

### *Motion To Amend Pilot Program*

In 2019, the Office implemented an MTA Pilot Program based on public feedback. See Notice Regarding a New Pilot Program Concerning Motion To Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 84 FR 9497 (March 15, 2019) (MTA Pilot Program notice). The MTA Pilot Program provides a patent owner with two options if it chooses to file an MTA in an AIA trial. The MTA Pilot Program notice (see 84 FR 9497–9507) presents information regarding these two options, timelines of due dates, and other details, including replies to comments received in response to a prior request for comments published on October 29, 2018 (see Request for Comments on Motion To Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board (83 FR 54319)) (seeking public comments on a previously proposed procedure for MTAs, the Board’s MTA practice generally, and the allocation of burdens of persuasion after *Aqua Products, Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc) (*Aqua Products*)) (2018 RFC).

Under the current program, as discussed in the MTA Pilot Program notice, a patent owner may choose to request preliminary guidance from the Board concerning the originally filed MTA. This non-binding preliminary guidance, typically in the form of a short paper, provides feedback about whether there is a reasonable likelihood that the MTA meets statutory and regulatory requirements for an MTA. MTA Pilot Program notice at 9497, 9499. The preliminary guidance also provides feedback on whether the petitioner (or the record then before the Office, including any opposition to the MTA and accompanying evidence) establishes a reasonable likelihood that any of the substitute claims are unpatentable based on the preliminary record. *Id.* at 9497. The preliminary guidance focuses on the limitations added in the MTA and does not address the patentability of the originally challenged claims. *Id.*

The patent owner may additionally or alternatively choose to file a revised MTA after receiving the petitioner’s opposition to the original MTA and/or after receiving the Board’s preliminary guidance (if requested). *Id.* at 9498. A revised MTA includes one or more new proposed substitute claims in place of previously presented substitute claims and also may provide new arguments

and/or evidence, but only in a manner that is responsive to issues raised in the preliminary guidance and/or the petitioner’s opposition to the MTA. *Id.*

A patent owner can avail itself of either, both, or neither of these two options. If the patent owner chooses neither of the two options, the patent owner can pursue an MTA in practically the same way as before the pilot program began. *Id.* at 9498.

The MTA Pilot Program is designed to provide a standardized framework of MTA procedures and timelines for actions that would reasonably fit within the one-year statutory period from institution to a final written decision. See, e.g., *id.* at 9506–07 (providing Appendices 1A (PO Reply Timeline) and 1B (Revised MTA Timeline)).

Shortly after the Office implemented the MTA Pilot Program, it issued a Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding (April 2019), 84 FR 16654 (April 22, 2019) (reissue and reexamination notice). The Office issued this notice in response to comments and questions from stakeholders requesting clarification regarding existing reissue and reexamination procedures at the Office available while an AIA trial proceeding, including any appeal to the U.S. Court of Appeals for the Federal Circuit, involving the patent is pending. *Id.* at 16654–55. The reissue and reexamination notice provides a summary of various pertinent practices regarding existing Office procedures that apply to reissue and reexamination, including after a petitioner files an AIA petition challenging claims of the same patent, after the Board institutes a trial, and after the Board issues a final written decision in an AIA trial proceeding. *Id.* at 16655–58. The notice also provides summary information about factors the Office currently considers when determining whether to stay or suspend a reissue proceeding, or stay a reexamination, that involves a patent involved in an AIA proceeding, and also when and whether to lift such a stay or suspension. *Id.* at 16656–58.

In determining whether the MTA Pilot Program should be made permanent in its current form, modified in some manner, or replaced, the Office seeks the benefit of the public’s experience with the program.

### *Rules of Practice To Allocate the Burdens of Persuasion on Motions To Amend*

In light of *Aqua Products*, as well as public comments in response to the 2018 RFC and a relevant notice of

proposed rulemaking dated October 22, 2019 (see Rules of Practice To Allocate the Burden of Persuasion on Motions To Amend in Trial Proceedings Before the Patent Trial and Appeal Board (84 FR 56401)), in 2020 the Office revised the rules of practice in AIA trials to allocate the burdens of persuasion for MTAs with respect to the patentability of proposed substitute claims. 37 CFR 42.121(d), 42.221(d); see Rules of Practice to Allocate the Burden of Persuasion on Motions to Amend in Trial Proceedings Before the Patent Trial and Appeal Board, 85 FR 82923 (December 21, 2020) (MTA burden-allocation rules package). The rules assign the burden of persuasion to the patent owner to show, by a preponderance of the evidence, that an MTA complies with certain statutory and regulatory requirements. 37 CFR 42.121(d)(1), 42.221(d)(1). The rules also assign the burden of persuasion to the petitioner to show, by a preponderance of the evidence, that any proposed substitute claims are unpatentable. 37 CFR 42.121(d)(2), 42.221(d)(2). Finally, the rules further specify that irrespective of those burdens, the Board may, in the interests of justice, exercise its discretion to grant or deny an MTA, but “only for reasons supported by readily identifiable and persuasive evidence of record.” 37 CFR 42.121(d)(3), 42.221(d)(3); *Hunting Titan, Inc. v. DynaEnergetics Europe GmbH*, IPR2018–00600 (PTAB July 6, 2020) (Paper 67) (*Hunting Titan*). 85 FR at 82924, 82926–27. The MTA burden-allocation rules package explained that the Office expects the Board will exercise its discretion only in “rare circumstances.” 85 FR at 82928. Such situations may include, for example, those in which “the petitioner has ceased to participate in the proceeding or chooses not to oppose the motion to amend, or those in which certain evidence regarding unpatentability has not been raised by either party but is so readily identifiable and persuasive that the Board should take it up in the interest of supporting the integrity of the patent system, notwithstanding the adversarial nature of the proceedings.” 85 FR at 82924, 82927 (citing *Hunting Titan*, Paper 67 at 12–13, 25–26). In instances in which the Board exercises its discretion in the interests of justice, the Board will provide the parties with an opportunity to respond before rendering a final decision on the MTA. *Id.* at 82927; see also 37 CFR 42.121(d)(3), 42.221(d)(3) (“Where the Board exercises its discretion under this paragraph, the parties will have an opportunity to respond.”).

As noted in the MTA burden-allocation rules package, “[i]n the vast majority of cases, the Board will consider only evidence a party introduces into the record of the proceeding.” *Id.* Thus, “[i]n most instances, in cases where the petitioner has participated fully and opposed the motion to amend, the Office expects that there will be no need for the Board to independently justify a determination of unpatentability.” *Id.* at 82927–28. That said, the Board may consider, for example, “readily identifiable and persuasive evidence already before the Office in a related proceeding (*i.e.*, in the prosecution history of the challenged patent or a related patent or application, or in the record of another proceeding before the Office challenging the same patent or a related patent).” *Id.* at 82927. Likewise, “the Board may consider evidence that a district court can judicially notice under Federal Rule of Evidence 201.” *Id.*; see also 37 CFR 42.121(d)(3), 42.221(d)(3) (“[T]he Board may make of record only readily identifiable and persuasive evidence in a related proceeding before the Office or evidence that a district court can judicially notice.”).

Subsequent to the issuance of the burden-allocation rules, the United States Court of Appeals for the Federal Circuit issued a precedential decision in *Hunting Titan, Inc., v. DynaEnergetics Europe GmbH*, 28 F.4th 1371 (Fed. Cir. 2022). The court stated that no court precedent has “established that the Board maintains an affirmative duty, without limitation or exception, to sua sponte raise patentability challenges to a proposed substitute claim.” *Id.* at 1381 (citations omitted). The court also stated that “confining the circumstances in which the Board should sua sponte raise patentability issues was not itself erroneous.” *Id.* The court, however, found it “problematic” that the USPTO confined the Board’s discretion to only rare circumstances. *Id.* It also noted that the USPTO’s “substantial reliance on the adversarial system . . . overlooks the basic purpose of [inter partes review] proceedings: to reexamine an earlier agency decision and ensure ‘that patent monopolies are kept within their legitimate scope.’” *Id.* (citations omitted); see *id.* at 1385 (concurrency expressing concern that the burden-allocation rule’s requirement for “readily identifiable and persuasive evidence” may prevent the Board from raising grounds “even when no one is around to oppose a new patent monopoly grant”).

The court also clarified that it was “not decid[ing] whether the Board has an independent obligation to determine

patentability of proposed substitute claims.” *Id.* at 1382. Under the rules as currently written, the Board retains discretion to raise, or to not raise, grounds of unpatentability.

In light of the court’s commentary on both the revised rules and the Board’s *Hunting Titan* decision, and the Office’s desire to support the integrity of the patent system and to issue robust and reliable patent rights, the Office seeks public comments on whether the Board should have broader authority to raise sua sponte grounds in the MTA process. Additionally, the Office seeks public comments on whether, and under what circumstances, the Office should solicit patent examiner assistance regarding an MTA or conduct a prior art search in relation to proposed substitute claims.

Furthermore, if the Board exercises its discretion and raises its own grounds of unpatentability under 37 CFR 42.121(d)(3), the burden-allocation rule does not specifically state where the burden of persuasion lies for Board-raised grounds. One interpretation of current Board authority would be that, because this scenario is outside of the adversarial process, neither party bears the burden of persuasion. The Office seeks public comments on whether the burden-allocation rule should be revised to clarify who bears the burden of persuasion for grounds of unpatentability raised by the Board under 37 CFR 42.121(d)(3) or 42.221(d)(3); see also *Nike, Inc. v. Adidas AG*, No. 2021–1903, 2022 WL 4002668, at \*4–10 (Fed. Cir. Sept. 1, 2022) (finding “it unnecessary to determine here whether, in an *inter partes* review, the petitioner or Board bears the burden of persuasion for an unpatentability ground raised sua sponte by the Board against proposed substitute claims,” after determining the outcome in the case would be the same regardless).

#### Questions Regarding the Pilot Program and Burdens of Persuasion in Motions To Amend

The Office welcomes any comments from the public on the pilot program and burdens of persuasion for MTAs, and in particular, requests feedback on the following questions:

(1) Has the MTA Pilot Program positively or negatively impacted a patent owner’s ability to successfully amend claims in an AIA proceeding? Has it made it more likely that a patent owner will avail itself of the MTA process?

(2) Are there circumstances in which reexamination and/or reissue proceedings are better options for patent owners seeking to amend claims

challenged in an AIA proceeding, as compared to the MTA Pilot Program? Is there anything more the Office can do to make the MTA process more useful to patent owners?

(3) Should the Office modify any aspect of the MTA Pilot Program? Should the Office continue to provide the options of receiving preliminary guidance and being able to revise an MTA, as currently implemented?

(4) Assuming the MTA Pilot Program should remain, should any aspect of preliminary guidance, as currently provided by the Board, be changed?

(5) What barriers, if any, exist that the Office can address to increase the effectiveness of the MTA procedure?

(6) Should the Office modify its practice of when the Board can or should raise a new ground of unpatentability, and if so, how? For example, should the PTAB's decision in the *Hunting Titan* case continue to guide when and how the Board can and should raise a new ground of unpatentability? If so, why and how?

(7) Should the Office involve patent examiner assistance in relation to MTAs? Should the Office conduct a prior art search in relation to proposed substitute claims in certain situations? If so, under what circumstances? And should examiner assistance or prior art searches be limited in any way?

(8) Should the Office clarify in its rules where the burden of persuasion for Board-raised grounds lies? Who should bear that burden?

(9) Should any other aspects of the MTA rules (37 CFR 42.121, 42.221), including as they relate to the Board's discretion to grant or deny an MTA, be changed, and if so, how?

**Katherine K. Vidal,**

*Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office.*

[FR Doc. 2023-10565 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-16-P**

**POSTAL SERVICE**

**39 CFR Part 111**

**Priority Mail Express Refunds**

**AGENCY:** Postal Service™.

**ACTION:** Proposed rule.

**SUMMARY:** The Postal Service is proposing to amend *Mailing Standards of the United States Postal Service*, Domestic Mail Manual (DMM®) to discontinue Priority Mail Express® postage refunds for guaranteed service for Alaska and Hawaii.

**DATES:** Submit comments on or before June 22, 2023.

**ADDRESSES:** Mail or deliver written comments to the Director, Product Classification, U.S. Postal Service, 475 L'Enfant Plaza SW, Room 4446, Washington, DC 20260-5015. If sending comments by email, include the name and address of the commenter and send to *PCFederalRegister@usps.gov*, with a subject line of "Priority Mail Express Refunds". Faxed comments are not accepted.

**Confidentiality**

All submitted comments and attachments are part of the public record and subject to disclosure. Do not enclose any material in your comments that you consider to be confidential or inappropriate for public disclosure.

You may inspect and photocopy all written comments, by appointment only, at USPS® Headquarters Library, 475 L'Enfant Plaza SW, 11th Floor North, Washington, DC, 20260. These records are available for review on Monday through Friday, 9 a.m.–4 p.m., by calling 202-268-2906.

**FOR FURTHER INFORMATION CONTACT:** Catherine Knox at (202) 268-5636 or Garry Rodriguez at (202) 268-7281.

**SUPPLEMENTARY INFORMATION:** Currently, except as provided in DMM 604.9.5.5, the Postal Service offers postage refunds for guaranteed service.

The Postal Service has determined that operationally we cannot meet the service commitments for Priority Mail Express expected by customers for Alaska and Hawaii.

As a result, the Postal Service is proposing to discontinue postage refunds for guaranteed service for Priority Mail Express pieces destined to or originating from Alaska or Hawaii. Postage refunds for loss will still be available for pieces destined to or originating from Alaska or Hawaii.

The Postal Service is proposing to implement this change effective August 1, 2023.

We believe the proposed revision will provide customers with a more efficient mailing experience.

**List of Subjects in 39 CFR Part 111**

Administrative practice and procedure, Postal Service.

Although exempt from the notice and comment requirements of the Administrative Procedure Act (5 U.S.C. 553(b), (c)) regarding proposed rulemaking by 39 U.S.C. 410(a), the Postal Service invites public comment on the following proposed revisions to *Mailing Standards of the United States Postal Service*, Domestic Mail Manual

(DMM), incorporated by reference in the Code of Federal Regulations. *See* 39 CFR 111.1.

We will publish an appropriate amendment to 39 CFR part 111 to reflect these changes.

Accordingly, 39 CFR part 111 is proposed to be amended as follows:

**PART 111—[AMENDED.]**

■ 1. The authority citation for 39 CFR part 111 continues to read as follows:

**Authority:** 5 U.S.C. 552(a); 13 U.S.C. 301-307; 18 U.S.C. 1692-1737; 39 U.S.C. 101, 401-404, 414, 416, 3001-3018, 3201-3220, 3401-3406, 3621, 3622, 3626, 3629, 3631-3633, 3641, 3681-3685, and 5001.

■ 2. Revise the *Mailing Standards of the United States Postal Service*, Domestic Mail Manual (DMM) as follows:

**Mailing Standards of the United States Postal Service, Domestic Mail Manual (DMM)**

\* \* \* \* \*

**600 Basic Standards for All Mailing Services**

\* \* \* \* \*

**604 Postage Payment Methods and Refunds**

\* \* \* \* \*

**9.0 Exchanges and Refunds**

\* \* \* \* \*

**9.5 Priority Mail Express Postage and Fees Refunds**

\* \* \* \* \*

**9.5.5 Refunds Not Given**

Postage will not be refunded if the guaranteed service was not provided due to any of the following circumstances:

\* \* \* \* \*

*[Renumber items i and j as j and k, and add new item i to read as follows:]*

i. The postage refund requested is other than for loss, and the Priority Mail Express piece was destined to or originated from Alaska or Hawaii.

\* \* \* \* \*

**Sarah Sullivan,**

*Attorney, Ethics and Legal Compliance.*

[FR Doc. 2023-10911 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-16-P**

## GENERAL SERVICES ADMINISTRATION

### 41 CFR Parts 300–3, 302–6 and 302–17

[FTR Case 2022–02; Docket No. GSA–FTR–2022–0012, Sequence No. 1]

RIN 3090–AK63

### Federal Travel Regulation (FTR); Relocation Allowance—Temporary Quarters Subsistence Expenses (TQSE)

**AGENCY:** Office of Government-wide Policy (OGP), General Services Administration (GSA).

**ACTION:** Proposed rule.

**SUMMARY:** The United States (U.S.) General Services Administration (GSA) is proposing to amend the Federal Travel Regulation (FTR) by implementing a third methodology for reimbursing temporary quarters subsistence expenses (TQSE) allowance and redefining the current methods of reimbursing TQSE to include, among others, lowering the percentage multipliers for calculating TQSE maximum daily amounts. The proposed rule would clarify that TQSE percentage multipliers cannot be adjusted for househunting days. The proposed rule also lists an exception to the “reasonable proximity” requirement for temporary quarters (TQ) located in a Presidentially-Declared Disaster area and allows agencies to authorize TQSE at the applicable locality per diem allowance or authorize actual expenses on an individual basis for TQ located in a Presidentially-Declared Disaster area. Instead of authorizing actual expenses on an individual basis, agencies can issue a blanket actual expense authorization for employees authorized to occupy TQ in Presidentially-Declared Disaster areas. The proposed rule would also update and clarify some TQSE sections and rearrange them into a more sequential order.

**DATES:** Interested parties should submit written comments to the Regulatory Secretariat Division at the address shown below on or before July 24, 2023 to be considered in the formation of the final rule.

**ADDRESSES:** Submit comments in response to FTR Case 2022–02 to: *Regulations.gov*; <https://www.regulations.gov>. Submit comments via the Federal eRulemaking portal by searching for “FTR Case 2022–02”. Select the link “Comment Now” that corresponds with “FTR Case 2022–02.” Follow the instructions provided on the screen. Please include your name, company name (if any), and “FTR Case

2022–02” on your attached document. If your comment cannot be submitted using <https://www.regulations.gov>, call or email the points of contact in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

**Instructions:** Please submit comments only and cite FTR Case 2022–02, in all correspondence related to this case. Comments received generally will be posted without change to <https://www.regulations.gov>, including any personal and/or business confidential information provided. To confirm receipt of your comment(s), please check [www.regulations.gov](https://www.regulations.gov), approximately two to three days after submission to verify posting.

**FOR FURTHER INFORMATION CONTACT:** For clarification of content, contact Mr. Rodney (Rick) Miller, Program Analyst, Office of Government-wide Policy, at 202–501–3822 or [travelpolicy@gsa.gov](mailto:travelpolicy@gsa.gov). For information pertaining to status or publication schedules, contact the Regulatory Secretariat Division at 202–501–4755 or [GSARegSec@gsa.gov](mailto:GSARegSec@gsa.gov). Please cite FTR Case 2022–02.

#### SUPPLEMENTARY INFORMATION:

##### I. Background

Pursuant to 5 United States Code (U.S.C.) 5738, the Administrator of General Services is authorized to prescribe regulations necessary to implement laws regarding Federal employees when assigned a temporary change of station (TCS) or when otherwise transferred in the interest of the Government. The overall implementing authority is the FTR, codified in title 41 of the Code of Federal Regulations, chapters 300 through 304.

GSA’s Office of Government-wide Policy (OGP) continually reviews and adjusts policies and regulations under its purview to address current Government relocation needs and incorporate best practices, where appropriate, as a part of its ongoing mission to provide policies for travel by Federal civilian employees and others authorized to travel at Government expense.

Each year, the Federal Government spends more than \$1 billion on relocation allowances to reimburse an average of 31,500 employees for their related expenses. Federal agencies can offer relocation allowances as an incentive to assist with defraying some of the costs for relocating individuals. The FTR provides regulatory procedures for certain mandatory and discretionary relocation allowances depending on the individual’s type of movement.

Pursuant to 5 U.S.C. 5724a(c) and 5737(a)(5), an employee transferred in

the interest of the Government may be authorized a TQSE allowance to reimburse the employee and the employee’s immediate family members for subsistence expenses incurred when it is necessary to occupy TQ. TQSE may be authorized for the following transfers: between official duty stations within the U.S.; from a foreign area to an official duty station in the U.S.; or assignment to a temporary official station and/or permanently assigned to a temporary official station within the U.S.

Agencies may offer two existing methods of TQSE: TQSE-actual expense (TQSE-AE) or TQSE-lump sum (TQSE-LS). Since fiscal year 2018, Federal agencies have approved about 12,000 TQSE claims annually for employees who relocated, with TQSE-AE as the most utilized reimbursement method.

Under the TQSE-AE method, the employee is reimbursed the cost of their actual subsistence expenses not to exceed the authorized maximum allowable amount. The TQSE-AE method uses the standard continental United States (CONUS) per diem rate or the outside the continental United States (OCONUS) non-foreign area per diem rate as the applicable per diem rate based on the TQ location. The employee and each of the employee’s immediate family members receives a percentage of that rate. The rate is applied to the first 30-day increment of occupying TQ and a reduced rate is applied after 30 days. Occupancy of TQ may extend up to the statutory maximum of 120 consecutive days. The employee documents their incurred daily allowable expenses, which may include: TQ lodging, including taxes; meals and/or groceries; fees and tips incident to meals and TQ lodging; and laundry/dry cleaning of clothes. The employee provides TQ lodging receipt(s) and a receipt for every expense over \$75, for each 30-day period of TQ occupancy.

In 2005, the Governmentwide Relocation Advisory Board (GRAB), which included representatives from Government agencies, private-sector corporate relocation departments, relocation industry associations, and/or relocation industry service providers, mentioned in its “Findings and Recommendations” that the TQSE-AE method is administratively burdensome and time-consuming for employees, travel examiners, and certifying official.

Since 1966, Title 5 of the U.S. Code has provided authority for agencies to reimburse TQSE in connection with an employee transferred in the interest of the Government. At that time, only one per diem rate was used within

CONUS—the standard CONUS rate. Since that time, however, GSA began establishing CONUS non-standard area (NSA) per diem rates for areas where the standard CONUS rate was insufficient. Currently, Federal agencies have employees assigned to offices and military bases in CONUS NSAs where the standard CONUS rate is insufficient for obtaining TQ lodging and meals under the TQSE–AE method. This is particularly true for single employees. Accordingly, for TQSE–AE and all TQSE methods, the proposed rule would allow for CONUS NSA per diem rates to be used as an applicable per diem rate to calculate the maximum daily amount of TQSE, depending upon where TQ will be occupied.

This proposed rule would also clarify that there is no requirement to separate maximum amounts for TQ lodging and M&IE in calculating TQSE–AE reimbursement. Accordingly, the separate allowances for TQ lodging and M&IE may be combined to produce a single maximum daily amount (which would allow some of the M&IE rate to offset the TQ lodging cost). Agencies can still ensure that an employee is not overcompensated by using the single maximum daily amount while also accounting for the rate change after 30 days in TQ.

Under the TQSE–LS method, agencies may offer a lump sum amount based on the standard CONUS, CONUS NSA, or OCONUS non-foreign area per diem rates, as appropriate, depending on the locality of the old and/or new official stations and wherever TQ will be occupied. Under this reimbursement method, a percentage of the maximum applicable per diem rate is paid to the employee and the employee's immediate family members for a maximum of 30 days of TQSE. Under TQSE–LS, there is no requirement to document and itemize expenses; however, the employee must certify that they occupied TQ.

To improve employees' relocation experience and assist agencies in processing relocation expenses reimbursement, GSA is proposing to amend the FTR to implement a third method of TQSE titled "temporary quarters subsistence expenses-lodgings-plus" (TQSE–LP). This third method would be the preferred TQSE reimbursement method for agencies to offer to employees; however, agencies may continue to offer TQSE–AE and/or TQSE–LS as an alternative. In accordance with 5 U.S.C. 5724a(h), TQSE–LP must follow the limitations prescribed for payments of subsistence expenses under 5 U.S.C. 5702. TQSE–LP is in line with 5 U.S.C. 5702 which

entitles an employee who performs official business away from their official station, a per diem allowance, reimbursement for actual and necessary expenses, or a combination of both. The FTR implements the "combination of both" statutory language by utilizing the temporary duty (TDY) "lodgings-plus per diem" methodology, which entitles an employee to reimbursement of actual lodging expenses up to a maximum amount by locality area, as supported by receipts, and a meals and incidental expenses (M&IE) allowance, which may be reimbursed without itemization or receipts. Accordingly, the proposed TQSE–LP method would follow similar principles as the TDY travel "lodgings-plus" method of per diem for reimbursement of TQSE under Chapter 302.

A difference between TDY lodgings-plus and TQSE–LP is that the TDY per diem allowance excludes lodging taxes and laundry/dry cleaning expenses from the per diem rate and allows the traveler to claim them as a separate TDY miscellaneous expense under part 301–12. However, part 302–6, does not contain or incorporate by reference, the provisions of Chapter 301 permitting recovery of these types of miscellaneous expenses nor are lodging taxes and laundry/dry cleaning expenses included in part 302–16. The proposed rule clarifies that laundry/dry cleaning expenses are included in the TQSE daily allowable M&IE expenses and TQ lodging taxes are separately reimbursable TQSE miscellaneous expenses.

The proposed TQSE–LP method would follow TQSE–LS and TQSE–AE by calculating reimbursement using the applicable per diem rate for the locality of the old and/or new official stations wherever TQ lodging will be occupied in the U.S. As with TQSE–AE, the proposed TQSE–LP method would permit occupancy of TQ beyond the initial authorization of 30 days (up to a maximum of 120 consecutive days), and reduce the maximum daily amount of TQSE after the initial 30-day period of TQ occupancy. Unlike TQSE–AE, however, the TQSE–LP method would require that TQ lodging and M&IE remain as separate maximum amounts for purposes of calculating the maximum daily amount of TQSE for the employee and the employee's immediate family members.

When compared with TQSE–AE, the proposed TQSE–LP method will result in a more efficient process for the traveler, travel examiner, and certifying official and would significantly reduce the administrative burden of maintaining, submitting, and reviewing

all subsistence expenses receipts and claims, other than the required lodging receipt. The reduced administrative burden should increase employee satisfaction with the relocation process, which is important for current employee recruitment and retention purposes.

The proposed rule would also reduce the percentage multipliers used to calculate the TQSE–AE and TQSE–LP maximum daily amount for each 30 days of TQSE. Because GSA is also proposing to permit use of CONUS NSA rates instead of requiring use of the CONUS standard rate when applicable, GSA has determined that lowering the percentage multipliers would still provide reasonable and equitable reimbursement to employees and their immediate family members for TQSE–AE and TQSE–LP.

Pursuant to 5 U.S.C. 5724a(b), an agency may authorize an employee and/or spouse who is transferring between official stations located within the United States to take one househunting trip (HHT) to seek permanent residence quarters at a new official station. The purpose of the HHT is to lower the overall TQ cost. Accordingly, agencies may reduce the number of days of TQSE if HHT is authorized. The agency also has the discretion to authorize full HHT (5 U.S.C. 5724a(b)) and subsequent TQSE (5 U.S.C. 5724a(c)), as the two are separate entitlements.

This proposed rule would clarify the effect on TQSE when an employee performs an HHT prior to relocating to the new official station. Specifically, agencies may reduce the number of overall TQSE days by the HHT days, but are not permitted to use HHT days to reduce the percentage multiplier for calculating TQSE.

Further, the proposed rule would eliminate the need for GSA to issue an FTR bulletin waiving FTR 302–6.9, which currently requires that TQ be in reasonable proximity to the old and/or new official stations, and FTR 302–6.102, which currently limits the applicable per diem allowance under the actual TQSE reimbursement method to the standard CONUS rate for TQ located in CONUS. Instead, the proposed rule lists TQ located in a Presidentially-Declared Disaster area as an exception to the "reasonable proximity" requirement, removes the limitation at 302–6.102, and allows agencies to authorize TQSE at the applicable locality per diem allowance or to authorize actual expenses (not to exceed the 300% ceiling) on an individual basis for TQ located in a Presidentially-Declared Disaster area. Instead of issuing individual actual expense authorizations, agencies may



issue a blanket actual expense authorization for employees authorized to occupy TQ in an area subject to a Presidentially-Declared Disaster. These changes should result in quicker notification to agencies and employees of their TQSE during a Presidentially-Declared Disaster rather than waiting for GSA to issue an FTR bulletin.

Finally, the proposed rule will also modify some FTR sections regarding TQSE and rearrange them into a more sequential order.

## II. Executive Orders 12866 and 13563

Executive Orders (E.O.s) 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This is a significant regulatory action and, therefore, was subject to review under section 6(b) of E.O. 12866, Regulatory Planning and Review, dated September 30, 1993.

## III. Impact Analysis

GSA performed an economic analysis on the proposed rule. GSA used the Business Travel and Relocation Dashboard to calculate an average of 31,500 domestic and international relocations per year since 2018 across the Federal Government with Federal agencies authorizing approximately 12,000 employees to receive TQSE, which is a discretionary relocation entitlement the agency may authorize to include the types of methods and the number of days authorized. GSA notes that Federal agencies are only required to track specific relocation data entitlements and not the different specific types within the entitlement.

GSA does not know the historical distribution of relocation as the Business Travel and Relocation Dashboard only accounts for the overall TQSE claims and the overall amount and does not differentiate between the types of TQSE (actual expense or lump sum), if TQSE is for an employee only or an employee with family members, locations of where TQSE occurred, or the number of total days for each claim within the United States (U.S.). Given that the scope of this proposed rule is limited to relocations within the continental U.S. (CONUS) and expenses are based on the GSA per diem rates, GSA used the FY23 per diem rates to

test how the proposed changes for TQSE-LP might compare to existing policy in terms of cost for those relocating to high cost areas.

The standard CONUS per diem rate is \$157 for FY23 (\$98 Lodging + \$59 M&IE). In FY23, there are 316 non-standard areas (NSAs) where GSA establishes per diem rates that are higher than the standard CONUS rate. Approximately half of the NSAs have seasonal rates. Under the proposed rule, for the employee's portion, the lodging and M&IE rates would use the same percentage for the initial 30-day period (currently 100%) or the second 30-day increment (currently 75%). However, the proposed rule would reduce the percentage for the last 60 days from the current rate of 75% to 55%. The family members' portion (currently 75% age 12 and over and 50% under 12) would be reduced for the first 30 days (50% and 40% respectively) and further reduced for each 30 day increment. There are 209 NSAs where the average (across seasons) per diem rate reduced to 75% would be less than the standard CONUS rate of \$157. The average across all 316 NSAs of the average per diem rate reduced to 75% is \$156.

The proposed rule to implement TQSE-LP method is similar to the Department of State foreign transfer allowance (FTA, "Pre-Departure Subsistence Allowance and Home Service Allowance—Partial Flat Rate" reimbursement methods used for Foreign Service Officers relocating to and from foreign assignments and occupy temporary quarters in the U.S., while the proposed reduce percentage is similar to the temporary quarters subsistence allowance (TQSA) for Foreign Service Officers and other Federal employees who relocate and occupy temporary quarters in a foreign country.

Increased costs of using TQSE-LP would be offset by anticipated cost savings from streamlining the administrative process for the traveler and agency travel examiners and certifying officials.

Measuring cost avoidance for TQSE-AE does not include the time the travelers must take, and resulting frustration, to retain and record each individual lodging, meal and laundry expense, including for all family members. TQSE-LP would increase employee satisfaction with the relocation process and significantly reduce the agency and employee administrative burden of maintaining, submitting and reviewing all subsistence expenses receipts and claims. Accordingly, TQSE-LP would maintain a budget neutral or possible

cost reduction due to lower anticipated administrative costs.

## IV. Regulatory Flexibility Act

GSA does not expect this proposed rule to have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, because it applies only to Federal agencies and employees. Therefore, an Initial Regulatory Flexibility Analysis was not performed.

## V. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the changes to the FTR do not impose recordkeeping or information collection requirements, or the collection of information from offerors, contractors, or members of the public that require the approval of the Office of Management and Budget (OMB) under 44 U.S.C. 3501, *et seq.*

### List of Subjects in 41 CFR Parts 300–3, 302–6, and 302–17

Government employees, Relocation, Travel and transportation expenses.

**Krystal J. Brumfield,**

*Associate Administrator, Office of Government-wide Policy.*

For reasons set forth in the preamble, GSA proposes to amend 41 CFR parts 300–3, 302–6, and 302–17 as set forth below:

### PART 300–3—GLOSSARY OF TERMS

■ 1. The authority for part 300–3 is revised to read as follows:

**Authority:** 5 U.S.C. 5707; 40 U.S.C. 121(c); 49 U.S.C. 40118; 5 U.S.C. 5738; 5 U.S.C. 5741–5742; 20 U.S.C. 905(a); 31 U.S.C. 1353; E.O. 11609, as amended, 3 CFR, 1971–1975 Comp., p. 586, Office of Management and Budget Circular No. A–126, revised May 22, 1992.

#### § 300–3.1 [Amended]

■ 2. Amend § 300–3.1 by adding a note at the end of the definition "Per diem allowance" to read as follows:

#### § 300–3.1 What do the following terms mean?

\* \* \* \* \*  
*Per diem allowance*— \* \* \*

**Note 1 to definition of "Per diem allowance":** For the purposes of chapter 302 of this subtitle, laundry/dry cleaning expenses are part of the incidental expenses portion of the per diem allowance for temporary quarters subsistence expenses (TQSE) and temporary quarters (TQ) lodging taxes are separately reimbursable TQSE miscellaneous expenses (see § 302–6.28 and part 302–16 of this subtitle).

\* \* \* \* \*



■ 3. Revise part 302–6 to read as follows:

**PART 302–6—ALLOWANCE FOR TEMPORARY QUARTERS SUBSISTENCE EXPENSES**

**Subpart A—General Rules**

Sec.

- 302–6.1 What are “temporary quarters subsistence expenses (TQSE)”?
- 302–6.2 What is the purpose of the TQSE allowance?
- 302–6.3 What are “temporary quarters”?
- 302–6.4 Am I eligible for a TQSE allowance?
- 302–6.5 Who is not eligible for a TQSE allowance?
- 302–6.6 Am I eligible for a TQSE allowance if I transfer to or from a foreign area?
- 302–6.7 Must my agency authorize payment of a TQSE allowance?
- 302–6.8 Under what circumstances will I receive a TQSE allowance?
- 302–6.9 Who may occupy temporary quarters at Government expense?
- 302–6.10 Where may I/we occupy temporary quarters at Government expense?
- 302–6.11 May my immediate family and I occupy temporary quarters at different locations?
- 302–6.12 How soon may I/we begin occupying temporary quarters at Government expense?
- 302–6.13 What is the latest period for which TQSE reimbursement may begin?
- 302–6.14 When does my authorized period for claiming TQSE reimbursement end?
- 302–6.15 May I and/or my immediate family occupy temporary quarters longer than the period for which I am authorized to claim TQSE reimbursement?
- 302–6.16 May the period for which I am authorized to claim TQSE reimbursement for myself be different from that of my immediate family?
- 302–6.17 What effect do partial days of temporary quarters occupancy have on my authorized period for claiming TQSE reimbursement?
- 302–6.18 How is my TQSE allowance affected if my temporary quarters become my permanent residence quarters?
- 302–6.19 May I receive a TQSE allowance if I am receiving another subsistence expense allowance?
- 302–6.20 May I be reimbursed for transportation expenses incurred while I am occupying temporary quarters?
- § 302–6.21 May I be reimbursed for TQSE while occupying my permanent residence quarters at my old official station?
- § 302–6.22 What methods may my agency use to reimburse me for TQSE?
- § 302–6.23 What is the “applicable per diem rate” under the TQSE reimbursement methods?
- § 302–6.24 How may my TQSE reimbursement be affected if I relocate to, or currently occupy, temporary quarters in a Presidentially-Declared Disaster area?

- § 302–6.25 Must I document my TQSE to receive reimbursement?
- § 302–6.26 May I receive an advance of funds for TQSE?
- § 302–6.27 Must I use a Government contractor-issued travel charge card for TQSE?
- § 302–6.28 Are temporary quarters lodging taxes and laundry/dry cleaning expenses included in the TQSE amount?
- § 302–6.29 How long may I be authorized to claim TQSE reimbursement?
- § 302–6.30 May my agency reduce my authorized number of TQSE days if I am authorized a househunting trip?
- § 302–6.31 What is a “compelling reason” warranting extension of my authorized period for claiming TQSE–LP or TQSE–AE reimbursement?
- § 302–6.32 May I interrupt occupancy of temporary quarters?

**Subpart B—TQSE Methods of Reimbursement**

- 302–6.100 What am I paid under the TQSE–LP reimbursement method?
- 302–6.101 What am I paid under the TQSE–AE reimbursement method?
- 302–6.102 What am I paid under the TQSE–LS reimbursement method?
- 302–6.103 May my agency reduce my TQSE allowance below the “maximum allowable amount”?

**Subpart C—Agency Responsibilities**

- 302–6.200 How should we administer the TQSE allowance?
- 302–6.201 What governing policies must we establish for the TQSE allowance?
- 302–6.202 Under what circumstances may we authorize the TQSE allowance?
- 302–6.203 What factors should we consider in determining whether the TQSE allowance is actually necessary?
- 302–6.204 What factors should we consider in determining what TQSE method(s) to offer an employee?
- 302–6.205 Must we require transferees to sign a statement that TQSE will be incurred?
- 302–6.206 When must we make the TQSE–LS payment to the transferee?
- 302–6.207 What factors should we consider in determining whether quarters are temporary?

**Authority:** 5 U.S.C. 5738; 20 U.S.C. 905(a); E.O. 11609, as amended, 3 CFR, 1971–1975 Comp., p. 586.

**Subpart A—General Rules**

**Note 1 to subpart A:** Use of pronouns “I”, “you”, and their variants throughout this subpart refers to the employee, unless otherwise noted.

**§ 302–6.1 What are “temporary quarters subsistence expenses (TQSE)”?**

“Temporary quarters subsistence expenses” or “TQSE” are subsistence expenses incurred by an employee and/or the employee’s immediate family while occupying temporary quarters. TQSE does not include transportation

expenses incurred during occupancy of temporary quarters (see § 302–6.20).

**§ 302–6.2 What is the purpose of the TQSE allowance?**

The TQSE allowance is intended to reimburse an employee reasonably and equitably for subsistence expenses incurred when it is necessary to occupy temporary quarters incident to an official relocation or temporary change of station.

**§ 302–6.3 What are “temporary quarters”?**

The term “temporary quarters” refers to lodging obtained for the purpose of temporary occupancy from a private or commercial source incident to an official relocation or temporary change of station.

**§ 302–6.4 Am I eligible for a TQSE allowance?**

You are eligible for a TQSE allowance if you are an employee who is authorized to transfer to a new official station, including upon assignment to a temporary official station (see FTR 302–3.413(b)) and permanent assignment to a temporary official station (see FTR 302–3.427); and

- (a) Your new official station is located within the United States; and
- (b) Your old and new official stations are at least 50 miles apart (as measured by map distance) via a usually traveled surface route; and
- (c) Your new official station meets the 50-mile distance test (see § 302–2.6(a)).

**§ 302–6.5 Who is not eligible for a TQSE allowance?**

- (a) New appointees;
- (b) Employees assigned under the Government Employees Training Act (5 U.S.C. 4109);
- (c) Senior Executive Service (SES) employees making their last move home for the purpose of separation from Government service;
- (d) Employees returning from an overseas assignment for the purpose of separation from Government service; and
- (e) Employees who were granted a waiver to the 50-mile distance test under § 302–2.6(b).

**§ 302–6.6 Am I eligible for a TQSE allowance if I transfer to or from a foreign area?**

(a) You may not receive a TQSE allowance under this part when you transfer to a foreign area. However, you may qualify for a comparable allowance under the Department of State Standardized Regulations (DSSR) (Government Civilians, Foreign Areas). (see § 302–3.101 of this chapter).

- (b) You may receive a TQSE allowance under this part when you

transfer from a foreign area and occupy temporary quarters in the U.S. You may also be authorized a comparable allowance, prescribed by the Department of State, at the foreign area preceding final departure subsequent to the necessary vacating of residence quarters. (see § 302–3.101 of this chapter).

**§ 302–6.7 Must my agency authorize payment of a TQSE allowance?**

No, TQSE is a discretionary allowance. Your agency determines whether it is in the Government's interest to pay TQSE.

**§ 302–6.8 Under what circumstances will I receive a TQSE allowance?**

You will receive a TQSE allowance if:

(a) Your agency authorizes it before you occupy the temporary quarters;

(b) Your relocation authorization specifies the TQSE method and the number of days allowed for you to receive TQSE;

(c) You have signed a service agreement; and

(d) You meet any additional conditions your agency has established.

**§ 302–6.9 Who may occupy temporary quarters at Government expense?**

Only you and/or your immediate family, as annotated on the relocation authorization, may occupy temporary quarters at Government expense.

**§ 302–6.10 Where may I/we occupy temporary quarters at Government expense?**

You and/or your immediate family may occupy temporary quarters in the U.S. at Government expense within reasonable proximity (approximately 50 miles) of the geographical area of your old and/or new official stations. Neither you nor your immediate family may be reimbursed for occupying temporary quarters at any other location, unless justified by special circumstances (*e.g.*, the temporary quarters location is subject to a Presidentially-Declared Disaster) that are reasonably related to your transfer.

**§ 302–6.11 May my immediate family and I occupy temporary quarters at different locations?**

Yes. Under various circumstances, you and your immediate family may need to occupy temporary quarters at different locations (*e.g.*, if you must report to the new official station while the immediate family delays the relocation to have family members complete the school year) (see § 302–6.16 regarding concurrent TQSE).

**§ 302–6.12 How soon may I/we begin occupying temporary quarters at Government expense?**

You may begin occupying temporary quarters at Government expense after your agency has authorized you to receive a TQSE allowance and you have signed a service agreement.

**§ 302–6.13 What is the latest period for which TQSE reimbursement may begin?**

The period must begin before the maximum time for completing all aspects of your relocation under § 302–2.9.

**§ 302–6.14 When does my authorized period for claiming TQSE reimbursement end?**

The period for claiming TQSE reimbursement ends at midnight on either the day before you and/or any member of your immediate family occupies permanent residence quarters (even if some, but not all household goods have been delivered to make the residence livable and now can be permanently occupied), or the day your authorized period for claiming TQSE reimbursement expires, whichever occurs first. (See § 302–6.207 for details).

**§ 302–6.15 May I and/or my immediate family occupy temporary quarters longer than the period for which I am authorized to claim TQSE reimbursement?**

Yes, but you will not be reimbursed for any of the expenses you incur during the unauthorized period.

**§ 302–6.16 May the period for which I am authorized to claim TQSE reimbursement for myself be different from that of my immediate family?**

No, the eligibility period for which you are authorized to claim TQSE reimbursement for yourself and for each member of your immediate family must run concurrently.

**§ 302–6.17 What effect do partial days of temporary quarters occupancy have on my authorized period for claiming TQSE reimbursement?**

Occupancy of temporary quarters is based on calendar days and partial days are counted as full days of TQSE. You may not receive reimbursement under both TQSE allowance and another subsistence expenses allowance within the same day, with one exception. If you claim TQSE reimbursement on the same day that en route travel per diem ends, your en route travel per diem will be computed under applicable partial day rules and you also may be reimbursed for actual TQSE you incur after 6 p.m. of that day.

**§ 302–6.18 How is my TQSE allowance affected if my temporary quarters become my permanent residence quarters?**

If your temporary quarters become your permanent residence quarters, you may receive a TQSE allowance only if you show in a manner satisfactory to your agency that you initially intended to occupy the quarters temporarily. You will not be entitled to TQSE once your agency determines that your temporary quarters are your permanent residence. (See § 302–6.207 for details).

**§ 302–6.19 May I receive a TQSE allowance if I am receiving another subsistence expenses allowance?**

No, unless your immediate family is claiming TQSE and you are performing separate official TDY travel, or you receive a cost-of-living allowance payable under 5 U.S.C. 5941 in addition to a TQSE allowance. (See § 302–6.17 for partial days for en route travel days.)

**§ 302–6.20 May I be reimbursed for transportation expenses incurred while I am occupying temporary quarters?**

Transportation expenses incurred in the vicinity of the temporary quarters, such as rental car or mileage for commuting to/from work, parking, and bus or mass transit, etc., are not TQSE expenses, and therefore, there is no authority to pay such expenses under TQSE.

**§ 302–6.21 May I be reimbursed for TQSE while occupying my permanent residence quarters at my old official station?**

Your agency may authorize TQSE for a reasonable time when your residence at your old official station becomes temporary and no longer suitable for permanent residence (*e.g.*, household goods have been shipped and are unavailable to you and your immediate family).

**§ 302–6.22 What methods may my agency use to reimburse me for TQSE?**

(a) Your agency may use one of the following TQSE methods:

- (1) TQSE—Lodgings-Plus (TQSE-LP);
- (2) TQSE—Actual Expense (TQSE-AE); or
- (3) TQSE—Lump Sum (TQSE-LS).

(b) Your agency will reimburse you for TQSE under the “lodgings-plus” method unless it offers you one or more of the alternate methods. If your agency makes multiple methods available to you, you may select the one you prefer; however, once your travel has begun, the authorized TQSE method may not be changed.

**§ 302–6.23 What is the “applicable per diem rate” under the TQSE reimbursement methods?**

The “applicable per diem rate” is the rate in effect for the locality at the old or new official station or combination thereof, wherever temporary quarters will be occupied. The applicable per diem rate could be the standard CONUS, CONUS non-standard area (NSA), or OCONUS non-foreign locality per diem rate as determined by GSA or the Department of Defense.

**§ 302–6.24 How may my TQSE reimbursement be affected if I relocate to, or currently occupy, temporary quarters in a Presidentially-Declared Disaster area?**

Your agency should consider delaying all non-essential relocations to Presidentially-Declared Disaster areas because the ability to secure temporary quarters lodgings in those areas may be compromised. If relocation cannot be delayed, or if you are already occupying temporary quarters that have been affected by the disaster, in a Presidentially-Declared Disaster area, for temporary quarters located within CONUS your agency may:

(a) Authorize you to occupy temporary quarters outside of the proximity requirements at § 302–6.10; and

(b) Authorize TQSE at the applicable locality per diem allowance under FTR §§ 301–11.100 through 301–11.102 of this subtitle or authorize actual expenses on an individual basis under FTR §§ 301–11.300 through 301–11.306 of this subtitle not to exceed 300 percent of the applicable per diem in accordance with § 301–11.303 of this subtitle; or

(c) Issue a blanket actual expense authorization. These authorizations must apply to a specific Presidential Disaster Declaration, and must end on the expiration date of the Declaration, or one year from the date the Declaration is issued, whichever is sooner. The maximum limit of 120 consecutive days that TQSE may be authorized is statutorily based and remains in effect in accordance with FTR § 302–6.29(a). A blanket authorization issued under this section shall not apply to any travel performed pursuant to chapter 301 of this subtitle.

**§ 302–6.25 Must I document my TQSE to receive reimbursement?**

(a) TQSE–LP method: You must file a voucher and provide documentation for your temporary quarters lodging expenses, lodging taxes, and other subsistence expenses over \$75. There is no requirement to document meals and incidental expenses.

(b) TQSE–AE method: You must file a voucher and document all temporary quarters lodging, lodging taxes, meals, and other subsistence expenses over \$75.

(c) TQSE–LS method: You are not required to document your subsistence expenses or file a voucher. However, your agency may require you to sign a statement or other document, and provide proof that you actually occupied temporary quarters, even if not for the full length of time on which the lump sum calculation was based. In the absence of sufficient proof of temporary quarters occupancy, your agency may demand repayment of the TQSE–LS payment in accordance with § 302–6.205.

**§ 302–6.26 May I receive an advance of funds for TQSE?**

(a) TQSE–LP and TQSE–AE methods: You may receive an advance of funds if authorized in accordance with your agency policy and § 302–2.24 of this chapter. Your agency may advance the amount of funds necessary to cover your estimated TQSE expenses for up to 30 days. Your agency may subsequently advance additional funds for periods up to 30 days.

(b) TQSE–LS method: You will not receive an advance of funds as your agency will offer a one-time lump sum payment as close as is reasonably possible to the time you will begin occupancy of temporary quarters; no additional payments will be authorized. If your TQSE–LS payment is more than adequate to cover your actual TQSE expenses, any balance belongs to you (e.g., your agency authorizes and you accept a lump sum payment for 15 days of TQSE and you vacate temporary quarters after 10 days, you would retain the remaining balance for the 5 days of TQSE not incurred).

**§ 302–6.27 Must I use a Government contractor-issued travel charge card for TQSE?**

Yes, you must use the Government contractor-issued travel charge card as the method of payment for all official relocation expenses, including TQSE, unless exempted under chapter 301, part 301–51 of this subtitle.

**§ 302–6.28 Are temporary quarters lodging taxes and laundry/dry cleaning expenses included in the TQSE amount?**

Temporary quarters lodging taxes are not included in your daily temporary quarters lodging rate and may be documented as a separate TQSE–LP or TQSE–AE miscellaneous expense. Lodging taxes for TQSE–LS are included in your overall lump sum amount. Laundry/dry cleaning expenses are

included in your incidental portion of the daily M&IE allowance, and are not separately reimbursed.

**§ 302–6.29 How long may I be authorized to claim TQSE reimbursement?**

(a) TQSE–LP and TQSE–AE methods: Your agency may initially authorize you to claim expenses in increments of 30 days or less, not to exceed 60 consecutive days. Your agency may authorize an extension of up to 60 additional consecutive days, for a maximum total of 120 consecutive days, if your agency determines that there is a compelling reason for you to continue occupying temporary quarters.

(b) TQSE–LS method: If your agency offers, and you select TQSE–LS, your agency may authorize a lump sum for each day authorized up to a maximum of 30 consecutive days of TQSE; no extensions are allowed under the lump sum payment method. You will not receive additional TQSE reimbursement if the lump sum payment is not adequate to cover your actual TQSE.

**§ 302–6.30 May my agency reduce my authorized number of TQSE days if I am authorized a househunting trip?**

Your agency may reduce the total number of days you are authorized for TQSE by the number of househunting days (e.g., instead of authorizing 60 days of TQSE your agency can authorize 50 days to account for your 10-day househunting trip); however, the percentage multiplier used for calculating TQSE may not be reduced based on the number of days used for a househunting trip.

**§ 302–6.31 What is a “compelling reason” warranting extension of my authorized period for claiming TQSE–LP or TQSE–AE reimbursement?**

A “compelling reason” is an event that is beyond your control and is acceptable to your agency. Examples include, but are not limited to when:

(a) Delivery of your household goods to your new residence is delayed due to availability of service providers, pandemics, strikes, customs clearance, hazardous weather, fires, floods or other acts of God, or similar events.

(b) You cannot occupy your new permanent residence because of unanticipated problems (e.g., delay in settlement on the new residence, or short-term delay in construction of the residence).

(c) You are unable to locate a permanent residence that is adequate for your family’s needs because of housing conditions at your new official station.

(d) Sudden illness, injury, your death or the death of your immediate family member.

**§ 302–6.32 May I interrupt occupancy of temporary quarters?**

Yes, your authorized period for claiming TQSE–LP and TQSE–AE reimbursement is measured on consecutive days, and once begun, normally continues to run whether or not you continue to occupy temporary quarters. However, you may interrupt your authorized period for claiming reimbursement in the following instances:

(a) For the time allowed for en route travel between the old and new official stations;

(b) For circumstances attributable to official necessity such as an intervening temporary duty assignment or military duty; or

(c) For a non-official necessary interruption such as hospitalization, approved sick leave, or other reasons beyond your control and acceptable to your agency.

**Subpart B—TQSE Methods of Reimbursement****§ 302–6.100 What am I paid under the TQSE–LP reimbursement method?**

Your agency will pay your actual daily temporary quarters lodging cost and a daily M&IE allowance not to exceed the single maximum lodging amount and the single maximum M&IE amount for the applicable per diem rate (see § 302–6.23) for the locality at the old or new official station or combination thereof, wherever temporary quarters will be occupied. Your TQSE expenses must be reasonable and if expenses exceed the maximum allowable amount, you will not be reimbursed for more than the maximum allowable amount. The “maximum allowable amount” is the “maximum daily amount” multiplied by the number of days you actually incur TQSE not to exceed the number of days authorized, taking into account that the rates change after 30 days in temporary quarters. The “maximum daily amount” is determined by adding the rates for you and each member of your immediate family authorized to occupy temporary quarters:

(a) For the first 30 days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner may receive 100 percent of the temporary quarters lodging portion of the applicable per diem rate and 100 percent of the M&IE portion of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 50 percent of the temporary quarters lodging portion of the

applicable per diem rate and 50 percent of the M&IE portion of the applicable per diem rate.

(3) A member of your immediate family who is under age 12 may receive 40 percent of the temporary quarters lodging portion of the applicable per diem rate and 40 percent of the M&IE portion of the applicable per diem rate.

(b) For the second 30 days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner<sup>2</sup> may receive 75 percent of the temporary quarters lodging portion of the applicable per diem rate and 75 percent of the M&IE portion of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 45 percent of the temporary quarters lodging portion of the applicable per diem rate and 45 percent of the M&IE portion of the applicable per diem rate.

(3) A member of your immediate family who is under age 12 may receive 35 percent of the temporary quarters lodging portion of the applicable per diem rate and 35 percent of the M&IE portion of the applicable per diem rate.

(c) For any additional authorized days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner<sup>2</sup> may receive 55 percent of the temporary quarters lodging portion of the applicable per diem rate and 55 percent of the M&IE portion of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 40 percent of the temporary quarters lodging portion of the applicable per diem rate and 40 percent of the M&IE portion of the applicable per diem rate.

(iii) A member of your immediate family who is under age 12 may receive 30 percent of the temporary quarters lodging portion of the applicable per diem rate and 30 percent of the M&IE portion of the applicable per diem rate.

**Note 1 to 302–6.100:** Temporary quarters lodging and M&IE remain as separate maximum amounts for purposes of calculating TQSE–LP. Examples of TQSE calculations are published in an FTR bulletin at <https://gsa.gov/ftrbulletins>.

**Note 2 to 302–6.100:** That is, when your spouse or domestic partner necessarily occupies temporary quarters in lieu of yourself or in a location separate from you.

**§ 302–6.101 What am I paid under the TQSE–AE reimbursement method?**

Your agency will pay your actual TQSE incurred, provided the expenses

are reasonable and if expenses exceed the maximum allowable amount, you will not be reimbursed for more than the maximum allowable amount. The “maximum allowable amount” is the “maximum daily amount” multiplied by the number of days you actually incur TQSE not to exceed the number of days authorized, taking into account that the rates change after 30 days in temporary quarters. The “maximum daily amount”<sup>1</sup> is determined by using the applicable per diem rate (see § 302–6.23) for the locality at the old or new official station or combination thereof, wherever temporary quarters will be occupied, and adding the rates for you and each member of your immediate family authorized to occupy temporary quarters:

(a) For the first 30 days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner<sup>2</sup> may receive 100 percent of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 50 percent of the applicable per diem rate.

(3) A member of your immediate family who is under age 12 may receive 40 percent of the applicable per diem rate.

(b) For the second 30 days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner<sup>2</sup> may receive 75 percent of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 45 percent of the applicable per diem rate.

(3) A member of your immediate family who is under age 12 may receive 35 percent of the applicable per diem rate.

(c) For any additional days of temporary quarters:

(1) You and/or your unaccompanied spouse or domestic partner<sup>2</sup> may receive 55 percent of the applicable per diem rate.

(2) Your accompanied spouse, domestic partner, or a member of your immediate family who is age 12 or older may receive 40 percent of the applicable per diem rate.

(3) A member of your immediate family who is under age 12 may receive 30 percent of the applicable per diem rate.

**Note 1 to 302–6.101:** Under TQSE–AE, separate amounts for temporary quarters lodging and M&IE may be combined to produce a single maximum daily amount to

allow some of the M&IE rate to offset the lodging cost. Examples of TQSE calculations are published in an FTR bulletin at <https://gsa.gov/ftrbulletins>.

**Note 2 to 302–6.101:** That is, when your spouse or domestic partner necessarily occupies temporary quarters in lieu of yourself or in a location separate from you.

#### **§ 302–6.102 What am I paid under the TQSE–LS reimbursement method?**

(a) For yourself, or your unaccompanied spouse or domestic partner if you are receiving a lump sum for TQSE, multiply the number of days (up to 30 days) your agency authorizes TQSE–LS by 75 percent of the applicable per diem rate (see § 302–6.23) for the locality at the old or new official station or combination thereof, wherever temporary quarters will be occupied.

(b) For each member of your immediate family, multiply the same number of days by 25 percent of the same per diem rate, as described in paragraph (a) of this section.

(c) Your lump sum payment will be the sum of the calculations in paragraphs (a) and (b) of this section.

**Note 1 302–6.102:** That is, when your spouse or domestic partner necessarily occupies temporary quarters in lieu of yourself or in a location separate from you. Examples of TQSE calculations are published in an FTR bulletin at <https://gsa.gov/ftrbulletins>.

#### **§ 302–6.103 May my agency reduce my TQSE allowance below the “maximum allowable amount”?**

Yes, if the estimated daily amount of your TQSE is determined in advance to be lower than the maximum daily amount, your agency may reduce the maximum allowable amount to your expected expenses provided the new applicable amount is annotated on the relocation authorization before you occupy temporary quarters. (However, see § 302–6.30 regarding househunting trips).

#### **Subpart C—Agency Responsibilities**

**Note to subpart C:** Use of pronouns “we”, “you”, and their variants throughout this subpart refers to the agency.

#### **§ 302–6.200 How should we administer the TQSE allowance?**

Temporary quarters should be authorized only if, and only for as long as necessary until the employee and the employee’s immediate family can move into permanent residence quarters. You must administer the TQSE allowance to minimize or avoid other relocation expenses.

#### **§ 302–6.201 What governing policies must we establish for the TQSE allowance?**

You must establish policies and procedures governing:

- (a) When you will authorize temporary quarters for employees;
- (b) Who will determine if temporary quarters is appropriate in each situation;
- (c) What method of TQSE will be authorized;
- (d) Who will determine the appropriate period of time for which TQSE reimbursement will be authorized, including approval of extensions and interruptions of temporary quarters occupancy;
- (e) Who will determine whether quarters were indeed temporary; and
- (f) Who will determine, and in what instances, to issue the authorizations at § 302–6.24, including a blanket authorization for actual expenses.

#### **§ 302–6.202 Under what circumstances may we authorize the TQSE allowance?**

You may authorize a TQSE allowance on an individual-case basis when use of temporary quarters is justified in connection with an employee’s transfer to a new official station, including upon assignment to a temporary official station and permanent assignment to a temporary official station. You may not authorize a TQSE allowance for vacation purposes or other reasons unrelated to the transfer.

#### **§ 302–6.203 What factors should we consider in determining whether the TQSE allowance is actually necessary?**

The factors you should consider include:

- (a) The length of time the employee should reasonably be expected to occupy their residence at the old official station before reporting for duty at the new official station. An employee and the employee’s immediate family should continue to occupy the residence at the old official station for as long as practicable to avoid the necessity for temporary quarters.
- (b) The existence of less expensive alternatives. If a less expensive alternative to the TQSE allowance exists that will enable the employee to find permanent quarters at the new official station, you should consider such an alternative. For example, authorize a househunting trip instead of temporary quarters if it would cost less overall.
- (c) The existence of other opportunities to arrange for permanent quarters. Consider whether the employee had adequate opportunity to arrange for permanent quarters. For example, you should not authorize temporary quarters if the employee had adequate opportunity during an

extended temporary duty assignment or long-term temporary change of station that became permanent, to arrange for permanent quarters.

#### **§ 302–6.204 What factors should we consider in determining what TQSE method(s) to offer an employee?**

When determining what TQSE method(s) to offer an employee the following factors should be considered:

(a) *Ease of administration.* You should consider the administrative requirements for each method of TQSE. Factors such as obtaining and reviewing receipts to verify validity, accuracy, and reasonableness of each expense carry an administrative burden to the employee, their immediate family, and you.

(b) *Cost consideration.* You should weigh the cost of each alternative. TQSE–LP and TQSE–AE reimbursement may extend up to 120 days, while the TQSE–LS payment is limited to a maximum of 30 days.

(c) *Treatment of employee.* The employee will be reimbursed for TQSE under the “lodgings-plus” method unless you offer one or more of the alternate methods. If you make all methods available to the employee, the employee is allowed to select any one of the methods. You should therefore consider employee morale and productivity against actual cost in determining which method(s) to offer.

#### **§ 302–6.205 Must we require transferees to sign a statement that TQSE will be incurred?**

(a) Transferees authorized TQSE–LP or TQSE–AE are not required to sign a statement asserting that they will occupy temporary quarters since they must document temporary quarters lodging expenses.

(b) Transferees electing the TQSE–LS payment option if offered by you, must sign a statement, which should be included as part of the service agreement, asserting that they will occupy temporary quarters and will incur TQSE. If a lump sum amount was paid, and if no TQSE are incurred, the transferee must return all monies received for the TQSE–LS payment to the agency.

#### **§ 302–6.206 When must we make the TQSE–LS payment to the transferee?**

You must pay the transferee the TQSE–LS payment before the occupancy of temporary quarters begins. You should make the TQSE–LS payment as close as is reasonably possible to the time that the transferee will begin occupancy of temporary quarters.

### § 302–6.207 What factors should we consider in determining whether quarters are temporary?

In determining whether quarters are “temporary”, you should consider factors such as reasonable time when the employee’s residence at the old official station becomes temporary and no longer suitable for permanent residence (e.g., household goods have been shipped and are unavailable to the employee and their immediate family), the duration of the lease, movement of household goods into the quarters, the type of quarters, the employee’s expressions of intent, attempts to secure a permanent dwelling, and the length of time the employee occupies the quarters.

### PART 302–17—TAXES ON RELOCATION EXPENSES

■ 4. The authority for part 302–17 continues to read as follows:

**Authority:** 5 U.S.C. 5724b; 5 U.S.C 5738; E.O. 11609, as amended, 3 CFR, 1971–1975 Comp., p.586.

### § 302–17.21 [Amended]

■ 5. Amend § 302–17.21(d) by removing “actual expense or lump sum method” in the second sentence and adding in its place “lodgings-plus, actual expense, or lump sum method”.

[FR Doc. 2023–10695 Filed 5–22–23; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Parts 223 and 224

[Docket No. 230517–0132; RTID 0648–XR127]

### Endangered and Threatened Wildlife; 90-Day Finding on a Petition To List the Smalltail Shark as Threatened or Endangered Under the Endangered Species Act

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

**ACTION:** 90-Day petition finding, request for information, and initiation of status review.

**SUMMARY:** We (NMFS) announce a positive 90-day finding on a petition to list the smalltail shark (*Carcharhinus porosus*) as threatened or endangered under the Endangered Species Act (ESA). The petitioner also requests that we designate critical habitat. We find

that the petition and information readily available in our files present substantial scientific or commercial information indicating that listing the smalltail shark as threatened or endangered may be warranted. Therefore, we are commencing a review of the status of the smalltail shark to determine whether listing under the ESA is warranted. To support a comprehensive status review, we are soliciting scientific and commercial data regarding this species. **DATES:** Scientific and commercial data pertinent to the petitioned action must be received by July 24, 2023.

**ADDRESSES:** You may submit comments on this document, identified by NOAA–NMFS–2023–0031 by the following method:

**Electronic Submissions:** Submit all electronic public comments via the Federal eRulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA–NMFS–2023–0031 in the Search box. Click on the “Comment” icon, complete the required fields, and enter or attach your comments.

**Instructions:** Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on [www.regulations.gov](http://www.regulations.gov) without change. All personal identifying information (e.g., name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

Interested persons may obtain a copy of the petition online at the NMFS website: <https://www.fisheries.noaa.gov/national/endangered-species-conservation/petitions-awaiting-90-day-findings>.

**FOR FURTHER INFORMATION CONTACT:** Joe Heublein, NMFS Southeast Region, 727–209–5962 or Adam Brame, NMFS Southeast Region, 727–209–5958.

#### SUPPLEMENTARY INFORMATION:

##### Background

On October 31, 2022, we received a petition from the Center for Biological Diversity to list the smalltail shark (*Carcharhinus porosus*) as an endangered or threatened species under the ESA, and to designate critical habitat concurrent with the listing. The petition also requests that, if we determine the smalltail shark warrants listing as a threatened species, we promulgate a protective regulation

under section 4(d) of the ESA, and requests that we promulgate a regulation under section 4(e) of the ESA for species similar in appearance to the smalltail shark. The petitioner asserts that fishery overexploitation for meat, fins, oil, and other byproducts, in addition to climate change, habitat degradation, pollution, inadequacy of regulatory mechanisms, and life history characteristics, is driving this species towards extinction. Copies of this petition are available from us (see **ADDRESSES**, above).

#### ESA Statutory and Regulatory Provisions and Evaluation Framework

Section 4(b)(3)(A) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires, to the maximum extent practicable, that within 90 days of receipt of a petition to list a species as threatened or endangered, the Secretary of Commerce make a finding on whether that petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted, and to promptly publish such finding in the **Federal Register** (16 U.S.C. 1533(b)(3)(A)). When we find that substantial scientific or commercial information in a petition indicates the petitioned action may be warranted (a “positive 90-day finding”), we are required to promptly commence a review of the status of the species concerned during which we conduct a comprehensive review of the best available scientific and commercial information. In such cases, we conclude the review with a finding as to whether, in fact, the petitioned action is warranted within 12 months of receipt of the petition. Because the finding at the 12-month stage is based on a more thorough review of the available information, as compared to the narrow scope of review at the 90-day stage, a “may be warranted” finding does not prejudice the outcome of the status review.

Under the ESA, a listing determination must address a species, which is defined to also include subspecies and, for any vertebrate species, any distinct population segment (DPS) that interbreeds when mature (16 U.S.C. 1532(16)). A joint NMFS–U.S. Fish and Wildlife Service (USFWS) (jointly, “the Services”) policy clarifies the agencies’ interpretation of the phrase “distinct population segment” for the purposes of listing, delisting, and reclassifying a species under the ESA (61 FR 4722; February 7, 1996). A species, subspecies, or DPS is “endangered” if it is in danger of extinction throughout all or a significant portion of its range, and “threatened” if it is likely to become endangered within

the foreseeable future throughout all or a significant portion of its range (ESA Sections 3(6) and 3(20), respectively, 16 U.S.C. 1532(6) and (20)). Pursuant to the ESA and our implementing regulations, we determine whether species are threatened or endangered based on any one or a combination of the following five section 4(a)(1) factors: the present or threatened destruction, modification, or curtailment of habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; inadequacy of existing regulatory mechanisms to address identified threats; or any other natural or manmade factors affecting the species' existence (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)).

ESA-implementing regulations issued jointly by the Services (50 CFR 424.14(h)(1)(i)) define "substantial scientific or commercial information" in the context of reviewing a petition to list, delist, or reclassify a species as credible scientific or commercial information in support of the petition's claims such that a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted. Conclusions drawn in the petition without the support of credible scientific or commercial information will not be considered substantial information.

Our determination as to whether the petition provides substantial scientific or commercial information indicating that the petitioned action may be warranted will depend in part on the degree to which the petition includes the following types of information: (1) information on current population status and trends and estimates of current population sizes and distributions, both in captivity and the wild, if available; (2) identification of the factors under section 4(a)(1) of the ESA that may affect the species and where these factors are acting upon the species; (3) whether and to what extent any or all of the factors alone or in combination identified in section 4(a)(1) of the ESA may cause the species to be an endangered species or threatened species (*i.e.*, the species is currently in danger of extinction or is likely to become so within the foreseeable future), and, if so, how high in magnitude and how imminent the threats to the species and its habitat are; (4) information on adequacy of regulatory protections and effectiveness of conservation activities by States as well as other parties, that have been initiated or that are ongoing, that may protect the species or its habitat; and (5)

a complete, balanced representation of the relevant facts, including information that may contradict claims in the petition. *See* 50 CFR 424.14(d).

If the petitioner provides supplemental information before the initial finding is made and states that it is part of the petition, the new information, along with the previously submitted information, is treated as a new petition that supersedes the original petition, and the statutory timeframes will begin when such supplemental information is received. *See* 50 CFR 424.14(g).

We may also consider information readily available at the time the determination is made. *See* 50 CFR 424.14(h)(1)(ii). We are not required to consider any supporting materials cited by the petitioner if the petitioner does not provide electronic or hard copies, to the extent permitted by U.S. copyright law, or appropriate excerpts or quotations from those materials (*e.g.*, publications, maps, reports, or letters from authorities). *See* 50 CFR 424.14(c)(6).

The substantial scientific or commercial information standard must be applied in light of any prior reviews or findings we have made on the listing status of the species that is the subject of the petition. Where we have already conducted a finding on, or review of, the listing status of that species (whether in response to a petition or on our own initiative), we will evaluate any petition received thereafter seeking to list, delist, or reclassify that species to determine whether a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted despite the previous review or finding. Where the prior review resulted in a final agency action—such as a final listing determination, 90-day not-substantial finding, or 12-month not-warranted finding—a petitioned action will generally not be considered to present substantial scientific and commercial information indicating that the action may be warranted unless the petition provides new information or analysis not previously considered. *See* 50 CFR 424.14(h)(1)(iii).

At the 90-day finding stage, we do not conduct additional research, and we do not solicit information from parties outside the agency to help us in evaluating the petition. We will accept the petitioners' sources and characterizations of the information presented if they appear to be based on accepted scientific principles, unless we have specific information in our files that indicates the petition's information is incorrect, unreliable, obsolete, or

otherwise irrelevant to the requested action. Information that is susceptible to more than one interpretation or that is contradicted by other available information will not be dismissed at the 90-day finding stage, so long as it is reliable and a reasonable person conducting an impartial scientific review would conclude it supports the petitioners' assertions. In other words, conclusive information indicating the species may meet the ESA's requirements for listing is not required to make a positive 90-day finding. We will not conclude that a lack of specific information alone necessitates a negative 90-day finding if a reasonable person conducting an impartial scientific review would conclude that the unknown information itself suggests the species may be at risk of extinction presently or within the foreseeable future.

To make a 90-day finding on a petition to list a species, we evaluate whether the petition presents substantial scientific or commercial information indicating the subject species may be either threatened or endangered, as defined by the ESA. First, we evaluate whether the information presented in the petition, in light of the information readily available in our files, indicates that the petitioned entity constitutes a "species" eligible for listing under the ESA. Next, we evaluate whether the information indicates that the species is at risk of extinction such that listing, delisting, or reclassification may be warranted; this may be indicated in information expressly discussing the species' status and trends, or in information describing impacts and threats to the species. We evaluate any information on specific demographic factors pertinent to evaluating extinction risk for the species (*e.g.*, population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), and the potential contribution of identified demographic risks to extinction risk for the species. We then evaluate the potential links between these demographic risks and the causative impacts and threats identified in section 4(a)(1).

Information presented on impacts or threats should be specific to the species and should reasonably suggest that one or more of these factors may be operative threats that act or have acted on the species to the point that it may warrant protection under the ESA. Broad statements about generalized threats to the species, or identification of factors that could negatively impact a species, do not constitute substantial



information indicating that listing may be warranted. We look for information indicating that not only is the particular species exposed to a factor, but that the species may be responding in a negative fashion; then we assess the potential significance of that negative response.

Many petitions identify risk classifications made by nongovernmental organizations, such as the International Union for Conservation of Nature (IUCN), the American Fisheries Society, or NatureServe, as evidence of extinction risk for a species. Risk classifications by such organizations or made under other Federal or state statutes may be informative, but such classification alone will not alone provide sufficient basis for a positive 90-day finding under the ESA. For example, as explained by NatureServe, its assessments of a species' conservation status do not constitute a recommendation by NatureServe for listing under the U.S. Endangered Species Act because NatureServe assessments have different criteria, evidence requirements, purposes and taxonomic coverage than government lists of endangered and threatened species, and therefore these two types of lists should not be expected to coincide (<https://explorer.natureserve.org/AboutTheData/DataTypes/ConservationStatusCategories>). Additionally, species classifications under IUCN and the ESA are not equivalent; data standards, criteria used to evaluate species, and treatment of uncertainty are also not necessarily the same. Thus, when a petition cites such classifications, we will evaluate the source of information that the classification is based upon in light of the standards on extinction risk and impacts or threats discussed above.

### Smalltail Shark Species Description

Smalltail sharks (*C. porosus*) are members of the ground shark family (*Carcharhinidae*). These relatively small sharks—reaching a maximum length of about 5 ft (1.5 m, Compagno 1984)—are generally found in estuaries and nearshore waters of the western Atlantic Ocean from Brazil to the northern Gulf of Mexico, though they are generally absent throughout the Caribbean Islands (Compagno 1984). They tend to associate with the bottom and are generally found over mud substrates (Compagno 1984). Smalltail sharks have large eyes, a long, pointed snout and lack an interdorsal ridge. Uniquely, the origin of their second dorsal fin is found above the midpoint of the anal fin. Their coloration is gray on the dorsal surface and white on the ventral.

Smalltail sharks are opportunistic predators and feed on bony fishes and invertebrates in shallow waters to depths of 275 ft (84 m). The smalltail shark is a relatively slow-growing viviparous shark with reproduction occurring year-round and a maximum litter size of nine embryos (Lessa et al. 1999). Both male and female smalltail sharks mature at approximately six years of age and maximum age has been documented as 12 years (Lessa and Santana 1998).

### Analysis of the Petition

We first evaluated the information presented in the petition. We find that the petitioners presented the information required in 50 CFR 424.14(c) and sufficient information under 424.14(d) to allow us to review the petition. The petition contains information on the smalltail shark, including the species description, distribution, habitat, population status and trends, and factors contributing to the species' status. Further, the petitioner asserts that the smalltail shark is impacted by overexploitation, climate change, habitat degradation, pollution, and its life history characteristics and clearly stated the petitioned action requested of listing the smalltail shark as threatened or endangered. Finally, the petition included a discussion of the smalltail shark's taxonomy, and we conclude that the petitioned organism is a "species" eligible for further consideration of listing.

### Population Status and Trends

The petition separates discussion of abundance and population trends into two regions: Western Central Atlantic (*i.e.*, United States Gulf of Mexico, Southern Gulf of Mexico, and Caribbean) and Brazil (*i.e.*, Northern Brazil, and Eastern and Southern Brazil). Overall, the petitioner states the global smalltail shark population has declined by more than 80 percent over three generations (27 years).

Based on information readily available in our files, observations of the smalltail shark are rare in U.S. waters and appear restricted to sporadic interactions with fisheries in the Gulf of Mexico. Smalltail shark landing records were identified in U.S. fisheries reports from the Gulf of Mexico from 1984 to 2015, with records present in 14 years during this time period (NOAA Fisheries Southeast Fisheries Science Center, unpublished data). The petitioner references trend data involving other shark species and environmental modeling that estimates a reduction in catch probabilities of smalltail shark in the United States Gulf

of Mexico. Information presented in the petition and available in our files do not indicate a clear trend in smalltail shark abundance in the United States Gulf of Mexico.

The petitioner notes a reduction in smalltail shark abundance and landings in the Southern Gulf of Mexico based in part on limited landings and anecdotal data. In the Caribbean (the Central and South American coasts), the smalltail shark has been documented as a significant proportion of shark catch in some countries with varying abundance and trend data (Pollum et al. 2020). Overall, information presented in the petition and available in our files do not indicate a clear trend in abundance of smalltail sharks in the Western Central Atlantic Ocean.

Available commercial fishing catch and landings data indicate that Brazil is the core of the smalltail shark distribution. Pollum et al. (2020) summarized information from multiple fisheries in Northern Brazil in the 1980s and 1990s where smalltail shark was the most commonly caught elasmobranch. Pollum et al. (2020) also noted that smalltail shark comprised up to 70% of catch weight in artisanal gillnet fisheries in Northern Brazil in the 1980s. The petitioner provides multiple lines of evidence, including catch rates, demographic modelling, and landings, suggesting a significant population decline (85–90% decline over 27 years) in this region. Furthermore, no recent recovery has been observed as ongoing fishing mortality is estimated to exceed population growth rates (Feitosa et al. 2020; Santana et al. 2020). In Eastern and Southern Brazil, the petitioner notes that the smalltail shark was common in the 1970s and 1980s and observations and catch records have become increasingly rare or absent since that time. The petitioner notes range reduction and localized extinction of the smalltail shark throughout Brazil.

Information presented in the petition and available in our files suggests a potential significant population decline and range contraction of the smalltail shark in Brazilian waters. Thus, the petition provides credible information that the species' current population status and trends may warrant the petitioned action.

### Information on Impacts and Threats to the Species

Next, we evaluated whether the petition, viewed in context of information readily available in our files, credibly suggests that one or more of the factors listed in ESA section 4(a)(1) may pose a risk of extinction for the smalltail shark. The petition states



that smalltail shark is threatened or endangered because of four of the five factors in section 4(a)(1): present or threatened destruction, modification, or curtailment of habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; inadequacy of existing regulatory mechanisms; and other natural or manmade factors affecting its continued existence. In the following sections, we summarize the information presented in the petition and in our files to determine whether the petitioned action may be warranted.

#### **The Present or Threatened Destruction, Modification, or Curtailment of the Smalltail Shark's Habitat or Range**

The petitioner includes a description of general threats to marine biodiversity and elasmobranchs (e.g., coastal development, agricultural and urban runoff) in Brazil, the Caribbean, and the U.S. Gulf of Mexico. The petition includes a description of the specific threat of contaminant exposure for smalltail sharks. Harmful levels of contaminants were documented in smalltail shark tissue from Trinidad and Tobago and Brazil (Mohammed and Mohammed 2017; Wosnick et al. 2021). The petition, however, did not provide any evidence of a decline in the species due to threats to habitat or contaminant exposure. Overall, the petition fails to present substantial scientific or commercial information indicating that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to the smalltail shark, nor do we have such information readily available in our files.

#### **Overutilization for Commercial, Recreational, Scientific, or Educational Purposes**

The petition states overutilization for fishing as the primary cause of the smalltail shark decline. The petition primarily includes discussion of the impacts of direct harvest of smalltail shark in Brazil for fin and meat trade, but does not specifically discuss overutilization of smalltail sharks in fisheries outside of Brazil. Impacts of fishing on the smalltail shark are summarized above in the *Population Status and Trends* section, and this information suggests a major population decline in Brazil due to fishing mortality. Therefore, we find that the petition presents substantial scientific information indicating that overutilization for commercial, recreational, scientific, or educational purposes is a threat to the smalltail shark.

#### **Inadequacy of Existing Regulatory Mechanisms for Smalltail Shark Protection**

The petition includes discussion of smalltail shark fisheries regulations by country. In the United States, harvest of smalltail sharks is prohibited in state- and Federally-managed fisheries. Mexico and Colombia do not have specific prohibitions or fisheries regulations pertaining to smalltail sharks. As summarized above in the *Population Status and Trends* section, population abundance and trends of the smalltail shark in the Western Central Atlantic is inconclusive, and thus the adequacy of existing regulations in these countries is unknown.

Information suggests a major decline of the smalltail shark population in Brazil, and the petition states overutilization for fishing as the primary cause of the smalltail shark decline. The petition notes that fisheries regulations in Brazil are insufficient to protect smalltail shark. The petition states that the legal framework protecting smalltail sharks and other elasmobranchs in Brazil is insufficient and that obsolete and the country has not had a nationally standardized fisheries data collection system since 2007. While smalltail shark was listed on the Brazilian Ordinance of the Ministry of Environment no. 445—which restricted the harvest and trade of species listed on Brazil's Red List of Endangered and Threatened Species—it was suspended in 2015, half of 2016, 2017, and half of 2018. These details indicate that both inadequate regulations and low compliance and enforcement in Brazilian fisheries are failing to protect the species from fishing mortality. Therefore, we find that the petition presents substantial scientific and commercial information indicating that the inadequacy of existing regulatory mechanisms is a threat to the smalltail shark.

#### **Other Natural or Manmade Factors Affecting Its Continued Existence**

The majority of threats from climate change described in the petition are not specific to the smalltail shark or their habitat in the marine and estuarine waters of the Western Central Atlantic and Brazil. The petition fails to present credible new information or otherwise offer substantial scientific or commercial information indicating that other natural or manmade factors are a threat to the smalltail shark.

#### **Petition Finding**

After reviewing the petition, the literature cited in the petition, and other

information readily available in our files, we find that there is substantial scientific and commercial information indicating that listing the smalltail shark, *C. porosus*, as a threatened or endangered species may be warranted. Therefore, in accordance with section 4(b)(3)(A) of the ESA and NMFS' implementing regulations (50 CFR 424.14(h)(2)), we will commence a status review of this species. During the status review, we will determine whether *C. porosus* is in danger of extinction (endangered) or likely to become so in the foreseeable future (threatened) throughout all or a significant portion of its range. As the petition did not request that we consider listing any specific DPSs, we will first assess the status of the taxonomic species, and then based on that assessment, consider whether additional analysis of potential DPSs is warranted and appropriate. As required by section 4(b)(3)(B) of the ESA, within 12 months of the receipt of the petition (October 31, 2022), we will make a finding as to whether listing the smalltail shark (or any DPSs) as an endangered or threatened species is warranted. If listing is warranted, we will publish a proposed rule and solicit public comments before developing and publishing a final rule. If applicable, the request to promulgate regulations under section 4(d) and section 4(e) of the ESA would be considered in accordance with the Administrative Procedure Act (5 U.S.C. 553) and applicable Departmental regulations, and appropriate action would be taken (50 CFR 424.14(j)).

#### **Information Solicited**

To ensure that the status review is based on the best available scientific and commercial data, we are soliciting comments and information from interested parties on the status of the smalltail shark. Specifically, we are soliciting information in the following areas:

- (1) Historical and current abundance and population trends of *C. porosus* throughout its range;
- (2) Historical and current distribution and population structure of *C. porosus*;
- (3) Information on *C. porosus* site fidelity, population connectivity, and movements within and between populations (including estimates of genetic diversity across and within populations);
- (4) Historical and current condition of *C. porosus* habitat;
- (5) Information on *C. porosus* life history and reproductive parameters;
- (6) Data on *C. porosus* diet and prey;

(7) Information and data on common *C. porosus* disease(s) and/or contaminant exposure;

(8) Historical and current data on *C. porosus* catch, bycatch, and retention in industrial, commercial, artisanal, and recreational fisheries throughout its range;

(9) Past, current, and potential threats, including any current or planned activities that may adversely impact *C. porosus* over the short-term or long-term;

(10) Data on trade of *C. porosus* products; and

(11) Management, regulatory, or conservation programs for *C. porosus*,

including mitigation measures related to any known or potential threats to the species throughout its range.

We request that all data and information be accompanied by supporting documentation such as maps, bibliographic references, or reprints of pertinent publications. Please send any comments in accordance with the instructions provided in the **ADDRESSES** section above. We will base our findings on a review of the best available scientific and commercial data, including relevant information received during the public comment period.

#### References Cited

A complete list of all references is available upon request from the Protected Resources Division of the NMFS Southeast Regional Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authority:** The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: May 17, 2023.

**Samuel D. Rauch, III,**

*Deputy Assistant Administrator for  
Regulatory Programs, National Marine  
Fisheries Service.*

[FR Doc. 2023-10891 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-22-P**

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF AGRICULTURE

### Farm Service Agency

[Docket ID: FSA–2023–0009]

#### Information Collection Requests; Guaranteed Farm Loan Program (OMB Control Number 0560–0155) and General Program Administration (OMB Control Number 0560–0238)

**AGENCY:** Farm Service Agency, USDA.

**ACTION:** Notice; request for comments.

**SUMMARY:** In accordance with the Paperwork Reduction Act (PRA) requirement, the Farm Service Agency (FSA) is requesting comments from all interested individuals and organizations on the two Farm Loan Programs' information collection requests. FSA is also requesting an extension with a revision for those currently approved information collection requests. The two collection requests in the Farm Loan Programs are: Guaranteed Farm Loan Program and General Program Administration. In the General Program Administration, the information collected is used to ensure that applicants meet statutory eligibility requirements, loan funds are used for authorized purposes, and the Government's interest in security is adequately protected. In the Guaranteed Farm Loan Program, the collected information is needed to make and service loans guaranteed by FSA to eligible farmers and ranchers by commercial lenders and nontraditional lenders.

**DATES:** We will consider comments that we receive by July 24, 2023.

**ADDRESSES:** We invite you to submit comments in response to this notice. FSA prefers that the comments are submitted electronically through the Federal eRulemaking Portal, identified by Docket ID No. FSA–2023–0009, go to <http://www.regulations.gov> and search for docket ID FSA–2023–0009. Follow

the online instructions for submitting comments.

All comments received will be posted without change and made publicly available on [www.regulations.gov](http://www.regulations.gov).

**FOR FURTHER INFORMATION CONTACT:** For specific questions related to the collection activities: for the Guaranteed Farm Loan Program, please contact Steve Ford, 202–304–7932; [steven.ford2@usda.gov](mailto:steven.ford2@usda.gov) and for the General Program Administration, please contact Tracy Jones, 202–720–6771, [tracy.jones@usda.gov](mailto:tracy.jones@usda.gov). Individuals who require alternative means for communication should contact the USDA TARGET Center at (202) 720–2600 (voice and text telephone (TTY)) or dial 711 for Telecommunications Relay service (both voice and text telephone users can initiate this call from any telephone).

#### SUPPLEMENTARY INFORMATION:

**Title:** Farm Loan Programs—Guaranteed Farm Loan.

**OMB Control Number:** 0560–0155.

**Expiration Date:** September 30, 2023.

**Type of Request:** Revision.

**Abstract:** This information collection is needed to effectively administer the FSA guaranteed farm loan programs. The information is collected by the FSA loan official in consultation with participating lenders. The basic objective of the guaranteed loan program is to provide credit to applicants who are unable to obtain credit from lending institutions without a guarantee. The reporting requirements imposed on the public by the regulations at 7 CFR part 762 and 763 are necessary to administer the guaranteed loan program in accordance with statutory requirements of the Consolidated Farm and Rural Development Act and are consistent with commonly performed lending practices. Collection of information after loans are made is necessary to protect the Government's financial interest.

The annual responses have been reduced by 18,974 while the burden hours reduced by 11,093 hours in the request. The reason for the decrease is due to a drop in Guaranteed loans originated between the years FY 2020 and FY 2022. Between FY 2019 and FY 2022, the number of Guaranteed loans fell by 19 percent from 7,611 to 6,137. In addition, the number of loss claims and status reports received is much lower than FY 2020.

For the following estimated total annual burden on respondents, the formula used to calculate the total burden hours is the estimated average time per response multiplied by the estimated total annual responses.

**Estimate of Average Time to Respond:** Public reporting burden for collecting information under this notice is estimated to average 0.8852 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**Type of Respondents:** Businesses or other for-profits and Farms.

**Estimated Number of Respondents:** 9,063.

**Estimated Average Number of Responses per Respondent:** 19.2733.

**Estimated Total Annual Responses:** 174,674.

**Estimated Average Time per Response:** 0.8852.

**Estimated Total Annual Burden on Respondents:** 154,631 hours.

**Title:** Farm Loan Programs—General Program Administration.

**OMB Control Number:** 0560–0238.

**Expiration Date:** September 30, 2023.

**Type of Request:** Revision.

**Abstract:** General Program Administration, as specified in the 7 CFR 761, contains requirements that are applicable to making and servicing direct loans. The information collections are necessary to ensure that applicants meet statutory eligibility requirements, loan funds are used for authorized purposes, and the Federal Government's interest in security is adequately protected. Specific information collection requirements include financial information in the form of a balance sheet and cash flow projection used in loan making and servicing decisions; information needed to establish joint bank accounts in which loan funds, proceeds derived from the sale of loan security and insurance proceeds, may be deposited; collateral pledges from financial institutions when the balance of a supervised bank account will exceed the maximum amount insurable by the Federal Government; and documents that construction plans and specifications to comply with state and local building standards.

The number of respondents has not changed since the last OMB submission.

The number of responses decreased by 17,956 while the number of burden hours decreased by 18,603 in the information collection request. Those decreases were due to the Executive Order 14058 requiring FSA to simplify the direct loan application process. As such, forms FSA–2001, FSA–2002, FSA–2003, FSA–2004, FSA–2005, FSA–2006, FSA–2037, FSA–2038, FSA–2302, and FSA–2330 have been consolidated in a single form for the purposes of direct loan making and that consolidation is reflected in this collection. Forms FSA–2037 and FSA–2038 are covered by OMB Control Number 0560–0238. The revised FSA–2001 is used for direct loan making to replace the use of the listed forms; other FLP uses, for example loan servicing may still use the original forms in some cases. The consolidating of 10 forms illustrates the reduction in those responses and burden hours affected by the streamlining.

For the following estimated total annual burden on respondents, the formula used to calculate the total burden hours is the estimated average time per response multiplied by the estimated total annual responses.

*Estimated Respondent Burden:* Public reporting burden for this collection of information is estimated to average 1.00204 hours per response.

*Type of Respondents:* Individuals or households, businesses or other for profit and farms.

*Estimated Number of Respondents:* 64,802.

*Estimated Number of Responses per Respondent:* 2.259.

*Estimated Total Annual Number of Responses:* 146,434.

*Estimated Average Time per Response:* 1.0204 hours.

*Estimated Total Annual Burden on Respondents:* 149,426 hours.

FSA is requesting comments on all aspects of this information collection to help us to:

(1) Evaluate whether the collection of information is necessary for the proper performance of the functions of FSA, including whether the information will have practical utility;

(2) Evaluate the accuracy of FSA's estimate of burden including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility and clarity of the information to be collected;

(4) Minimize the burden of the collection of information on those who are to respond, including using appropriate automated, electronic, mechanical, or other technological

collection techniques or other forms of information technology.

All comments received in response to this notice, including names and addresses when provided, will be a matter of public record. Comments will be summarized and included in the submission for Office of Management and Budget approval.

#### USDA Non-Discrimination Policy

In accordance with Federal civil rights law and USDA civil rights regulations and policies, USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family or parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Individuals who require alternative means of communication for program information (for example, braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA TARGET Center at (202) 720–2600 (voice and text telephone (TTY) or dial 711 for Telecommunications Relay Service (both voice and text telephone users can initiate this call from any telephone). Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD–3027, found online at <https://www.usda.gov/oascr/how-to-file-a-program-discrimination-complaint> and at any USDA office or write a letter addressed to USDA and provide in the letter all the information requested in the form. To request a copy of the complaint form, call (866) 632–9992. Submit your completed form or letter to USDA by mail to: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250–9410 or email: [OAC@usda.gov](mailto:OAC@usda.gov).

USDA is an equal opportunity provider, employer, and lender.

#### Zach Ducheneaux,

Administrator, Farm Service Agency.

[FR Doc. 2023–10910 Filed 5–22–23; 8:45 am]

BILLING CODE 3410–E2–P

## DEPARTMENT OF AGRICULTURE

### Federal Crop Insurance Corporation

#### Risk Management Agency

[Docket ID FCIC–23–0001]

#### Request for Information and Stakeholder Listening Sessions on Prevented Planting

**AGENCY:** Federal Crop Insurance Corporation and Risk Management Agency, U.S. Department of Agriculture (USDA).

**ACTION:** Notice of request for information.

**SUMMARY:** The Federal Crop Insurance Corporation (FCIC) is hosting listening sessions and requesting public input about the prevented planting provisions of the Common Crop Insurance Policy (CCIP), Basic Provisions. Prevented planting is a feature of many crop insurance plans that provides a payment to cover certain pre-plant costs for a crop that was prevented from being planted due to an insurable cause of loss. FCIC is interested in public input on the following: additional prevented planting coverage based on harvest prices in situations when harvest prices are higher than established prices initially set by FCIC prior to planting; the requirement that acreage must have been planted to a crop, insured, and harvested, in at least 1 of the 4 most recent crop years; additional levels of prevented planting coverage; prevented planting coverage on contracted crops; and other general prevented planting questions. We invite stakeholders to respond to this request for information or to participate in the listening session(s). All listening sessions will be posted publicly and open to the public for registration.

**DATES:** *Comments:* We will consider comments that we receive by September 1, 2023.

#### ADDRESSES:

*Listening sessions:* To attend any of the listening sessions, go to [www.rma.usda.gov](http://www.rma.usda.gov) for dates, times, and locations. No RSVP or reservation is required.

*Comments:* We invite you to send comments in response to this notice. In addition, if you plan to provide oral comments at a listening session, please see the information in the Listening Sessions section below. Send your comments through the method below:

- *Federal eRulemaking Portal:* Go to <https://www.regulations.gov> and search for Docket ID FCIC–23–0001. Follow the instructions for submitting comments.

All comments will be posted without change and will be publicly available on [www.regulations.gov](http://www.regulations.gov).

**FOR FURTHER INFORMATION CONTACT:** Francie Tolle; telephone (816) 926-7829; or email [francie.tolle@usda.gov](mailto:francie.tolle@usda.gov). Persons with disabilities who require alternative means for communication should contact the USDA Target Center at (202) 720-2600 (voice).

**SUPPLEMENTARY INFORMATION:**

**Background**

FCIC serves America's agricultural producers through effective, market-based risk management tools to strengthen the economic stability of agricultural producers and rural communities. FCIC is committed to increasing the availability and effectiveness of Federal crop insurance as a risk management tool. The Risk Management Agency (RMA) administers the FCIC regulations. The Approved Insurance Providers (AIP) sell and service Federal crop insurance policies in every state through a public-private partnership. FCIC reinsures the AIPs who share the risk associated with losses due to natural causes. FCIC's vision is to secure the future of agriculture by providing world class risk management tools to rural America.

Prevented planting coverage pays when a producer is unable to plant an insured crop due to an insured cause of loss. The payment is intended to assist in covering the normal costs associated with preparing the land up to the point of the seed going in the ground (pre-plant costs). These pre-plant costs can include seed, purchase of machinery, land rent, fertilizer, actions taken to ready the field, pesticide, labor, and repairs. Coverage is calculated as a percent of the producer's insurance guarantee (for example, 60 percent for soybeans).

FCIC is hosting listening sessions to provide an opportunity for stakeholders and interested members of the public to share input about ways to improve prevented planting coverage for producers while maintaining program integrity. FCIC is interested in all general prevented planting comments but requests public input from stakeholders on the following specific topics:

**Prevented Planting Coverage Based on Harvest Prices for Revenue Protection Insurance**

Revenue protection is a plan of insurance that provides protection against loss of revenue due to a production loss, price decline or increase, or a combination of both.

Under the revenue protection plan of insurance, yield losses are compensated using the harvest-time price if it is higher than the price FCIC projected prior to planting. This compensates producers for the replacement value of lost bushels. This type of coverage was intended to help producers mitigate the risk of having to buy out of delivery contracts they are unable to fulfill due to production losses. Currently, the prevented planting calculation for revenue protection is based on the projected price and does not increase with the harvest price.

Revenue protection is the most popular insurance coverage in the crop insurance program. Under revenue protection, producers may elect a harvest price exclusion option which removes the protection against loss of revenue due to harvest price increase. Over 99 percent of revenue protection policies maintain harvest price coverage.

Following the volume of prevented planting payments for 2019 and 2020, a consistent suggestion emerged to allow prevented planting payments to increase with the harvest price, as is currently done for lost production. Allowing the harvest price for prevented planting payments would not impact most years as there needs to be both an increase in the harvest price and a prevented planting claim. Historical data suggests the additional coverage would increase prevented planting payments by approximately 6 percent on average for those policies with harvest price revenue coverage. Consequently, there would need to be a corresponding increase in premium for these policies.

The following are questions for input regarding prevented planting coverage based on the harvest price:

1. Should prevented planting payments be based on the harvest price or the price used to establish the insurance guarantee (projected price)?
2. What specific advantages or disadvantages do you see for allowing prevented planting coverage to be based on the harvest price?
3. When a producer is prevented from planting, what additional loss does a producer suffer when the harvest price increases and what should be considered to estimate the value of the loss?
4. Do you have any concerns about allowing prevented planting coverage to be based on the harvest price?

**Prevented Planting "1 in 4" Requirement**

Beginning with the 2021 crop year, FCIC revised the prevented planting provisions to implement the "1 in 4"

requirement nationwide. The "1 in 4" requirement states that acreage must have been planted to a crop, insured, and harvested (or if not harvested, adjusted for claim purposes due to an insurable cause of loss) in at least 1 out of the previous 4 crop years. This was meant to reduce prevented planting payments on land that is not generally available to plant, thus lowering insurance costs for all producers. Prior to the 2021 crop year, the "1 in 4" requirement was only applicable to the Prairie Pothole National Priority Area and required that the acreage must be physically available for planting.

In late 2022, FCIC announced the "1 in 4" requirement would be removed from western states that have experienced significant ongoing drought in recent years. The purpose of removing the requirement in these states was to give FCIC more time to better understand the unique needs of western producers and to also ensure all parties can provide input on the change.

The following are questions regarding the prevented planting "1 in 4" requirement:

1. Since the nationwide implementation of the "1 in 4" requirement, what situations have created challenges due to this requirement for producers that have been prevented from planting?
2. Do you have recommendations that would make the requirement more flexible for producers while protecting the integrity of the Federal Crop Insurance Program?
3. Are there specific situations that should exempt land from the "1 in 4" requirement and why?
4. Should the requirement be removed from specific areas and why?
5. A portion of the "1 in 4" requirement allows crops that have been adjusted for claims purposes due to an insured cause of loss to be considered harvested. However, this allowance excludes claims adjusted due to the following causes of loss: flood, excess moisture, and drought. Should the requirement exclude specific causes of loss adjusted for claims purposes and why?
6. Are you aware of additional program integrity measures or safeguards that should be considered beyond what is in place today?
7. Do you believe there should be a limit on the number of consecutive years that a producer is eligible to receive a prevented planting payment on the same acreage? If so, what do you believe the limit should be?

### Prevented Planting 10 Percent Additional Coverage

Insureds with additional coverage, a coverage level greater than catastrophic risk protection, may elect an additional level of prevented planting coverage, commonly referred to as buy-up coverage, on or before the sales closing date. The additional coverage level allows producers to better tailor their coverage to match their actual prevented planting costs. The additional level of prevented planting coverage also requires the producer pay additional premium. Prior to the 2018 crop year, two additional prevented planting coverage levels were available, 5 percent (+5) and 10 percent (+10). FCIC removed the +10 additional coverage option beginning in the 2018 crop year. Removing the +10 additional coverage option maintained the balance between providing coverage to producers and the cost to taxpayers. While FCIC has removed the +10 additional coverage option, the +5 additional coverage option is still available.

RMA is considering reinstating the +10 additional coverage option. The following are questions regarding the +10 additional coverage option:

1. What specific advantages or disadvantages do you see regarding reinstating the +10 additional coverage option?

2. If you believe reinstating the +10 additional coverage option will provide needed protection for producers, why is it needed in addition to the current +5 additional coverage option?

3. Do you have any concerns about reinstating the +10 additional coverage option?

### Prevented Planting Coverage on Contracted Crops

For several crops, crop types, or specific practices grown under a contract with a processor, a contract price option allows a producer to use their contract price to determine the insurance guarantee. For example, the Contract Price Addendum allows organic certified and transitional producers of many crops to use the price contained in their organic contract for insurance. Currently, when the contract price option is elected, the prevented planting coverage is based on the contract price. However, it has been suggested that prevented planting costs may be the same regardless of whether the producer had a contract. FCIC is requesting input on whether the prevented planting guarantee should use the RMA established price (price election or projected price), regardless of if the contract price option has been elected.

The price election is the amount contained in the actuarial documents that is the value per pound, bushel, ton, carton, or other applicable unit of measure for the purposes of determining premium and indemnity under the policy. The projected price is the price for each crop determined in accordance with the <sup>1</sup> Commodity Exchange Price Provisions. The applicable projected price is used for each crop for which revenue protection is available, regardless of whether you elect to obtain revenue protection or yield protection for the crop.

The following are questions regarding prevented planting coverage on contracted crops that can elect the contract price option:

1. Are pre-planting costs higher for contracted crops? If so, explain.

2. Should prevented planting payments be based on the contract price or RMA's established price (price election or projected price)? Please explain why.

3. If a contract price is used for prevented planting guarantee purposes, should there be any limitations as to when the contract is secured, specifically when a cause of loss is present that may prevent planting?

### Other General Prevented Planting Questions

1. Do you believe all producers will support paying higher premiums to cover the costs of expanded prevented planting benefits?

2. Are pre-planting costs the same for all causes of loss? For example: Does a multi-year drought leading to failure of irrigation supply have the same pre-planting costs as unexpected flooding prior to planting?

### Listening Sessions

FCIC will host listening sessions for public input to examine the current policy and explore policy improvements regarding prevented planting coverage. The listening sessions will provide an opportunity for stakeholders and interested members of the public to share their thoughts about ways to improve prevented planting coverage for producers while maintaining program

<sup>1</sup> The Commodity Exchange Price Provisions (CEPP) are used in conjunction with either the Common Crop Insurance Policy Basic Provisions or the Area Risk Protection Insurance Basic Provisions, along with Crop Provisions for the following crops: barley, canola/rapeseed, corn, cotton, grain sorghum, rice, soybeans, sunflowers, and wheat. The CEPP specifies how and when the projected and harvest price components will be determined. Updated CEPP documents are on the RMA website at [www.rma.usda.gov/Policy-and-Procedure/Insurance-Plans/Commodity-Exchange-Price-Provisions-CEPP](http://www.rma.usda.gov/Policy-and-Procedure/Insurance-Plans/Commodity-Exchange-Price-Provisions-CEPP).

integrity. Each listening session will begin with brief opening remarks from USDA officials. All stakeholders and interested members of the public are welcome to provide oral and written comments; however, based on the listening session time or topic area constraints, FCIC may not be able to allocate time for all attendees to provide oral comments during the listening sessions. In your comments, provide your input about the prevented planting coverage, changes, and anything else that may be helpful for FCIC to be aware of or consider. We welcome public input that we can factor into decisions that need to be made to implement any changes to prevented planting coverage. We request that speakers planning to provide oral comments also provide a written copy of their comments at the listening session. All written comments received at the listening sessions will be posted without change and will be publicly available on [www.regulations.gov](http://www.regulations.gov).

### Instructions for Attending the Meeting

All persons wishing to attend the listening session can view dates, times, and locations at [www.rma.usda.gov](http://www.rma.usda.gov). No RSVP is required. For those unable to attend an in-person listening session, some virtual sessions will be available. The virtual session may be attended online or by telephone.

### Meeting Accommodation Request

If you are a person requiring reasonable accommodation to attend a listening session, please make requests in advance for sign language interpretation, assistive listening devices, or other reasonable accommodations, including language translation, to Francie Tolle as identified in the contact information section above. Determinations for reasonable accommodation will be made on a case-by-case basis. The listening session locations are accessible to persons with disabilities.

### USDA Non-Discrimination Policy

In accordance with Federal civil rights law and USDA civil rights regulations and policies, USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family or parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or

activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Individuals who require alternative means of communication for program information (for example, braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA TARGET Center at (202) 720-2600 (voice and text telephone (TTY)) or dial 711 for Telecommunications Relay Service (both voice and text telephone users can initiate this call from any telephone). Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at <https://www.usda.gov/oascr/how-to-file-a-program-discrimination-complaint> and at any USDA office or write a letter addressed to USDA and provide in the letter all the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by mail to: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250-9410 or email: [OAC@usda.gov](mailto:OAC@usda.gov).

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**Marcia Bunger,**

Manager, Federal Crop Insurance Corporation; and Administrator, Risk Management Agency.

[FR Doc. 2023-10926 Filed 5-22-23; 8:45 am]

BILLING CODE 3410-08-P

## DEPARTMENT OF AGRICULTURE

### Federal Crop Insurance Corporation

[Docket No. FCIC-23-0005]

#### Notice of Request for Extension of a Currently Approved Information Collection

**AGENCY:** Federal Crop Insurance Corporation, USDA.

**ACTION:** Extension of approval of an information collection; comment request.

**SUMMARY:** This notice announces a public comment period on the information collection requests (ICRs) associated with the Subpart U—Ineligibility for Programs under the Federal Crop Insurance Act.

**DATES:** Comments that we receive on this notice will be accepted until close of business July 24, 2023.

**ADDRESSES:** We invite you to submit comments on this notice. You may submit comments electronically through the Federal eRulemaking Portal: Go to <http://www.regulations.gov> and search for Docket ID FCIC-23-0005. Follow the online instructions for submitting comments. Comments will be available for viewing online at <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:**

Francie Tolle; telephone (816) 926-7829; email [francie.tolle@usda.gov](mailto:francie.tolle@usda.gov). Persons with disabilities who require alternative means of communication should contact the USDA Target Center at (202) 720-2600 (voice) or (844) 433-2774 (toll-free nationwide).

**SUPPLEMENTARY INFORMATION:**

*Title:* Subpart U—Ineligibility for Programs under the Federal Crop Insurance Act.

*OMB Control Number:* 0563-0085.

*Type of Request:* Notice of request for extension of a currently approved information collection.

*Abstract:* The following mandates require FCIC to identify persons who are ineligible to participate in the Federal crop insurance program administered under the Federal Crop Insurance Act:

- (1) Section 1764 of the Food Security Act of 1985 (Pub. L. 99-198);
- (2) 21 U.S.C. chapter 13;
- (3) Section 14211 of the Food, Conservation, and Energy Act of 2008 (Pub. L. 110-246);
- (4) Executive Order 12549; and
- (5) 7 U.S.C. 1515.

The FCIC and approved insurance providers use the information collected to determine whether persons seeking to obtain Federal crop insurance coverage are ineligible for such coverage according to those mandates. The purpose of collecting the information is to ensure persons that are ineligible for benefits under the Federal crop insurance program are accurately identified as such and do not obtain benefits to which they are not eligible.

FCIC and RMA do not obtain information used to identify a person as ineligible for benefits under the Federal crop insurance program directly from the ineligible person. Approved insurance providers notify RMA of persons with a delinquent debt electronically through a secure automated system. RMA (1) sends written notification to the person informing them they are ineligible for benefits under the Federal crop insurance program; and (2) places that person on the RMA Ineligible Tracking

System until the person regains eligibility for such benefits.

RMA's Office of General Counsel notifies RMA in writing of persons convicted of controlled substance violations. RMA (1) sends written notification to the person informing them they are ineligible for benefits under the Federal crop insurance program; and (2) places that person on RMA's Ineligible Tracking System until the person regains eligibility for such benefits.

Persons debarred, suspended or disqualified by RMA are (1) notified, in writing, they are ineligible for benefits under the Federal crop insurance program; and (2) placed on RMA's Ineligible Tracking System until the person regains eligibility for such benefits.

Information identifying persons who are ineligible for benefits under the Federal crop insurance program is made available to all approved insurance providers through RMA's Ineligible Tracking System. The Ineligible Tracking System is an electronic system, maintained by RMA, which identifies persons who are ineligible to participate in the Federal crop insurance program. The information must be made available to all approved insurance providers to ensure ineligible persons cannot circumvent the mandates by switching from one approved insurance providers to another.

In addition, information identifying persons who are debarred, suspended or disqualified by RMA is provided to the General Services Administration to be included in the Excluded Parties List System, an electronic system maintained by the General Services Administration that provides current information about persons who are excluded or disqualified from covered transactions.

*Estimate of burden:* Reporting burden for the collection and transmission of information by approved insurance providers, including reporting for late payment of debt for approved insurance provider reinstatement and Administrator reinstatement, is estimated to average 21 minutes per response.

*Respondents:* Approved insurance providers.

*Estimated Number of Respondents:* 14 approved insurance providers.

*Estimated Number of Forms per Respondent:* All information is obtained electronically from approved insurance providers.

*Estimated Total Annual Responses:* 6,328 from all respondents.

*Estimated Total Annual Respondent Burden:* 2,207 from all respondents.

We are requesting comments on all aspects of this information collection to help us to:

(1) evaluate whether the collection of information is necessary for the proper performance of the functions of the agencies, including whether the information will have practical utility;

(2) evaluate the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used;

(3) enhance the quality, utility and clarity of the information to be collected; and

(4) minimize the burden of the collection of information on those who are to respond.

All responses to this notice will be summarized and included in the request for OMB approval. All comments will also become a matter of public record.

**Marcia Bunger,**

*Manager, Federal Crop Insurance Corporation.*

[FR Doc. 2023-10927 Filed 5-22-23; 8:45 am]

**BILLING CODE 3410-08-P**

## DEPARTMENT OF AGRICULTURE

### Federal Crop Insurance Corporation

[Docket No. FCIC-23-0003]

#### Notice of Request for an Extension of a Currently Approved Information Collection

**AGENCY:** Federal Crop Insurance Corporation, USDA.

**ACTION:** Extension of approval of an information collection; comment request.

**SUMMARY:** This notice announces a public comment period on the information collection request (ICR) associated with the Area Risk Protection Insurance (ARPI).

**DATES:** Comments that we receive on this notice will be accepted until close of business July 24, 2023.

**ADDRESSES:** We invite you to submit comments on this notice. You may submit comments electronically through the Federal eRulemaking Portal: Go to <http://www.regulations.gov> and search for Docket ID No. FCIC-23-0003. Follow the instructions for submitting comments. Comments will be available for viewing online at [regulations.gov](https://www.regulations.gov).

**FOR FURTHER INFORMATION CONTACT:** Francie Tolle; telephone (816) 926-7829; email [francie.tolle@usda.gov](mailto:francie.tolle@usda.gov). Persons with disabilities who require alternative means of communication should contact the USDA Target Center

at (202) 720-2600 (voice) or (844) 433-2774 (toll-free nationwide).

**SUPPLEMENTARY INFORMATION:**

**Title:** Area Risk Protection Insurance.  
**OMB Number:** 0563-0083.

**Expiration Date of Approval:** October 31, 2023.

**Type of Request:** Renewal of a currently approved information collection.

**Abstract:** The information collection requirements for this renewal package are necessary to administer the ARPI Basic Provisions and affected Crop Provisions to determine insurance coverage, premiums, subsidies, payments, and indemnities. ARPI is an insurance plan that provides coverage based on the experience of an entire county. Producers are required to report specific data when they apply for ARPI such as acreage and yields. Insurance companies accept applications; issue policies; establish and provide insurance coverage; compute liability, premium, subsidies, and losses; indemnify producers; and report specific data to FCIC as required in Appendix III/M13 Handbook. Commodities for which ARPI is available are included in this information collection package.

FCIC is requesting the Office of Management and Budget (OMB) to renew and extend the approval of this information collection for an additional 3 years.

The purpose of this notice is to solicit comments from the public concerning this information collection. These comments will help us:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information has practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other forms of information technology, e.g., permitting electronic submission of responses).

**Estimate of Burden:** The public reporting burden for this collection of information is estimated to average 0.62 of an hour per response.

**Respondents/Affected Entities:** Producers and insurance providers reinsured by FCIC.

**Estimated Annual Number of Respondents:** 15,509.

**Estimated Annual Number of Responses per Respondent:** 5.9.

**Estimated Annual Number of Responses:** 91,679.

**Estimated Total Annual Burden on Respondents:** 56,711.

All responses to this notice will be summarized and included in the request for OMB approval. All comments will also become a matter of public record.

**Marcia Bunger,**

*Manager, Federal Crop Insurance Corporation.*

[FR Doc. 2023-10932 Filed 5-22-23; 8:45 am]

**BILLING CODE 3410-08-P**

## COMMISSION ON CIVIL RIGHTS

### Notice of Public Meetings of the Missouri Advisory Committee to the U.S. Commission on Civil Rights

**AGENCY:** U.S. Commission on Civil Rights.

**ACTION:** Announcement of meeting.

**SUMMARY:** Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Missouri Advisory Committee (Committee) will hold will hold series of web-based panel discussions on Wednesday, May 31, 2023 from 12:00 p.m. Central time; Wednesday, June 7, 2023 from 1:00 p.m.–3:00 p.m. Central time.

**DATES:** The meetings will take place on Wednesday, May 31, 2023 at 12:00 p.m. Central time; and Wednesday, June 7, 2023 from 1:00 p.m.–3:00 p.m. Central time. The purpose of these meetings is for the Committee to hear testimony regarding education in the state.

#### Dates & Online Registration

- **Panel I:** Wednesday, May 31, 2023 from 12:00 p.m.–2:00 p.m. Central time.

**ADDRESSES:**

**Online Registration (Audio/Visual):**  
<https://www.zoomgov.com/j/1619510455>.

**Telephone (Audio Only):** Dial 833-568-8864 USA Toll Free; Access code: 161 951 0455.

- **Panel II:** Wednesday, June 7, 2023 from 1:00 p.m.–3:00 p.m. Central time.

**Online Registration (Audio/Visual):**  
<https://www.zoomgov.com/j/1605816295>.

**Telephone (Audio Only):** Dial 833-568-8864 USA Toll Free; Access Code: 160 581 6295.

**FOR FURTHER INFORMATION CONTACT:** David Barreras, DFO, at [dbarreras@usccr.gov](mailto:dbarreras@usccr.gov) or (312) 353-8311.



**SUPPLEMENTARY INFORMATION:** Members of the public may listen to this discussion through the above call in number. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Individual who is deaf, deafblind and hard of hear hearing may also follow the proceedings by first calling the Federal Relay Service at 1-800-877-8339 and providing the Service with the conference call number and confirmation code.

Members of the public are entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to Corrine Sanders at [csanders@usccr.gov](mailto:csanders@usccr.gov). Persons who desire additional information may contact the Regional Programs Unit at (312) 353-8311.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Unit Office, as they become available, both before and after the meeting. Records of the meeting will be available via [www.facadatabase.gov](http://www.facadatabase.gov) under the Commission on Civil Rights, Mississippi Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, <http://www.usccr.gov>, or may contact the Regional Programs Unit at the above email or street address.

#### Agenda

- I. Welcome and roll call
- II. Panel Discussion: Education in Missouri
- III. Public Comment
- IV. Next Steps
- V. Adjournment

Dated: May 16, 2023.

**David Mussatt,**

*Supervisory Chief, Regional Programs Unit.*

[FR Doc. 2023-10944 Filed 5-22-23; 8:45 am]

**BILLING CODE P**

## COMMISSION ON CIVIL RIGHTS

### Notice of Public Meeting of the U.S. Virgin Islands Advisory Committee to the U.S. Commission on Civil Rights

**AGENCY:** U.S. Commission on Civil Rights.

**ACTION:** Notice of public meeting.

**SUMMARY:** Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act, that the U.S. Virgin Islands Advisory Committee (Committee) to the U.S. Commission on Civil Rights will hold a public meeting via Zoom. The purpose of the meeting is to discuss and plan on matters related to the Committee's inaugural civil rights project.

**DATES:** Thursday, June 1, 2023, from 12:00 p.m.–1:00 p.m. Atlantic Time.

**ADDRESSES:** The meeting will be held via Zoom.

*Meeting Link (Audio/Visual):* <https://www.zoomgov.com/j/1614166203>.

*Join by Phone (Audio Only):* 1-833-435-1820 USA Toll-Free; Meeting ID: 161 416 6203#.

#### FOR FURTHER INFORMATION CONTACT:

David Barreras, Designated Federal Officer, at [dbarreras@usccr.gov](mailto:dbarreras@usccr.gov) or 1-202-656-8937.

**SUPPLEMENTARY INFORMATION:** This Committee meeting is available to the public through the Zoom meeting link above. Any interested member of the public may listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. Per the Federal Advisory Committee Act, public minutes of the meeting will include a list of persons who are present at the meeting. If joining via phone, callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Closed captioning is available by selecting "CC" in the meeting platform. To request additional accommodations, please email [svillanueva@usccr.gov](mailto:svillanueva@usccr.gov) at least 10 business days prior to the meeting.

Members of the public are entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to David Barreras at [dbarreras@usccr.gov](mailto:dbarreras@usccr.gov). Persons who desire additional information may contact the

Regional Programs Coordination Unit at 1-202-656-8937.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Coordination Unit Office, as they become available, both before and after the meeting. Records of the meetings will be available via [www.facadatabase.gov](http://www.facadatabase.gov) under the Commission on Civil Rights, U.S. Virgin Islands Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, <http://www.usccr.gov>, or may contact the Regional Programs Coordination Unit at [svillanueva@usccr.gov](mailto:svillanueva@usccr.gov).

#### Agenda

- I. Welcome & Roll Call
- II. Discussion: Committee's Inaugural Civil Rights Project
- III. Public Comment
- IV. Next Steps
- V. Adjournment

Dated: May 18, 2023.

**David Mussatt,**

*Supervisory Chief, Regional Programs Unit.*

[FR Doc. 2023-10945 Filed 5-22-23; 8:45 am]

**BILLING CODE P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### In the Matter of: Johnathon Martin Soria, 1103 E Main Street, Eagle Lake, TX 77434-2829; Order Denying Export Privileges

On July 12, 2021, in the U.S. District Court for the Western District of Texas, Johnathon Martin Soria ("Soria") was convicted of violating 18 U.S.C. 554(a). Specifically, Soria was convicted of smuggling or attempting to smuggle from the United States to Mexico firearms as defined in Category I of the United States Munitions List, without a license or written authorization. As a result of his conviction, the Court sentenced Soria to 50 months of confinement, with credit for time served, 3 years of supervised release, \$100 assessment and \$1,000 criminal fine.

Pursuant to Section 1760(e) of the Export Control Reform Act ("ECRA"),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801-4852.

conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Soria’s conviction for violating 18 U.S.C. 554. As provided in Section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Soria to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Soria.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Soria’s export privileges under the Regulations for a period of 10 years from the date of Soria’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Soria had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until July 12, 2031, Johnathon Martin Soria, with a last known address of 1103 E Main Street, Eagle Lake, TX 77434–2829, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported

or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to Section 1760(e) of ECRA and Sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Soria by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with Part 756 of the Regulations, Soria may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of Part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Soria and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until July 12, 2031.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10912 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Reynoldo Lopez-Cota, 1625 West Fort Lowell Rd., Apt. #44, Tucson, Arizona 85705; Order Denying Export Privileges**

On May 7, 2021, in the U.S. District Court for the District of Arizona, Reynoldo Lopez-Cota (“Lopez-Cota”) was convicted of violating 18 U.S.C. 371 and 18 U.S.C. 554(a). Specifically, Lopez-Cota was convicted of conspiracy and smuggling 1,000 rounds of 7.62 caliber ammunition, one 100 rounds of .223 drum magazine and one speed loader from the United States to Mexico. As a result of his conviction, the Court sentenced Lopez-Cota to 24 months of confinement with credit for time served, 36 months of supervised release, and a \$200 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371 and 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Lopez-Cota’s conviction for violating 18 U.S.C. 371 and 18 U.S.C. 554. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Lopez-Cota to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Lopez-Cota.

Based upon my review of the record and consultations with BIS’s Office of

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730 through 774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Lopez-Cota's export privileges under the Regulations for a period of ten years from the date of Lopez-Cota's conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Lopez-Cota had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until May 7, 2031, Reynoldo Lopez-Cota, with a last known address of 1625 West Fort Lowell Rd, Apt. #44, Tucson, Arizona 85705, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives ("the Denied Person"), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as "item") exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Lopez-Cota by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with Part 756 of the Regulations, Lopez-Cota may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of Part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Lopez-Cota and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until May 7, 2031.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023-10883 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

**In the Matter of: Leonel Apolinar Lopez, 7122 W Kingman Street, Phoenix, AZ 85043-7818; Order Denying Export Privileges**

On March 9, 2020, in the U.S. District Court for the District of Arizona, Leonel Apolinar Lopez ("Lopez") was convicted of violating 18 U.S.C. 371. Specifically, Lopez was convicted of conspiring to straw purchase and smuggle firearms to Mexico. As a result of his conviction, the Court sentenced Lopez to 12 months and one day of confinement, with credit for time served and 36 months of supervised release.

Pursuant to section 1760(e) of the Export Control Reform Act ("ECRA"),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security ("BIS") licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Lopez's conviction for violating 18 U.S.C. 371. As provided in section 766.25 of the Export Administration Regulations ("EAR" or the "Regulations"), BIS provided notice and opportunity for Lopez to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Lopez.

Based upon my review of the record and consultations with BIS's Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Lopez's export privileges under the Regulations for a period of 10 years from the date of Lopez's conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Lopez had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until March 9, 2030, Leonel Apolinar Lopez,

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801-4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730-774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

with a last known address of 7122 W Kingman Street, Phoenix, AZ 85043–7818, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever

origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Lopez by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Lopez may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Lopez and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until March 9, 2030.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10966 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510–DT–P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Luis Manuel Bray-Vazquez, Inmate Number: 16344–509, FCI Lompoc, Federal Correctional Institution, 3600 Guard Road, Lompoc, CA 93436; Order Denying Export Privileges**

On August 24, 2021, in the U.S. District Court for the District of Arizona, Luis Manuel Bray-Vazquez (“Bray-Vazquez”) was convicted of violating 18 U.S.C. 554(a). Specifically, Bray-Vazquez was convicted of smuggling and attempting to smuggle from the United States to Mexico, five 7.62x39mm caliber rifles, four 7.62x39mm caliber pistols, three 5.56 caliber rifles, one Barrett .50 caliber rifle, one .45 ACP caliber pistol, and one 9x19mm caliber pistol. As a result of his conviction, the Court sentenced Bray-Vazquez to 46 months of confinement, with credit for time served, 36 months of supervised release and \$100 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Bray-Vazquez’s conviction for violating 18 U.S.C. 554. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Bray-Vazquez to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Bray-Vazquez.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Bray-Vazquez’s export privileges under the Regulations for a period of 10 years from the date of Bray-Vazquez’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Bray-Vazquez had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until August 24, 2031, Luis Manuel Bray-Vazquez, with a last known address of Inmate Number: 16344–509, FCI Lompoc, Federal Correctional Institution, 3600 Guard Road, Lompoc, CA 93436, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Bray-Vazquez by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be

made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Bray-Vazquez may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Bray-Vazquez and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until August 24, 2031.

**John Sonderman**,

*Director, Office of Export Enforcement.*

[FR Doc. 2023-10907 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Luis Sanchez, 56 Mill Street, Belleville, NJ 07109; Order Denying Export Privileges**

On October 15, 2020, in the U.S. District Court for the Northern District of Georgia, Luis Sanchez (“Sanchez”) was convicted of violating 18 U.S.C. 371. Specifically, Sanchez was convicted of conspiring to export firearms using an alias from the United States to the Dominican Republic concealed in household items. As a result of his conviction, the Court sentenced Sanchez to 12 months and one day of confinement, three years supervised release and \$100 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Sanchez’s conviction for violating 18 U.S.C. 371. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS

provided notice and opportunity for Sanchez to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Sanchez.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Sanchez’s export privileges under the Regulations for a period of six years from the date of Sanchez’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Sanchez had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until October 15, 2026, Luis Sanchez, with a last known address of 56 Mill Street, Belleville, NJ 07109, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Sanchez by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Sanchez may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Sanchez and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until October 15, 2026.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10964 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### In the Matter of: Victor Ceballos Polanco, 22 River Birch Road NW, Cartersville, GA 30121; Order Denying Export Privileges

On November 6, 2020, in the U.S. District Court for the Northern District of Georgia, Victor Ceballos Polanco (“Polanco”) was convicted of violating 18 U.S.C. 371. Specifically, Polanco was convicted of conspiring to export firearms using an alias from the United States to the Dominican Republic concealed in household items. As a result of his conviction, the Court sentenced Polanco to 3 years of probation and \$100 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Polanco’s conviction for violating 18 U.S.C. 371. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Polanco to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Polanco.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Polanco’s export privileges under the Regulations for a period of five years from the date of Polanco’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Polanco had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until November 6, 2025, Victor Ceballos

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

Polanco, with a last known address of 22 River Birch Road NW, Cartersville, GA 30121, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever

origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Polanco by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Polanco may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Polanco and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until November 6, 2025.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023-10909 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Oscar Ignacio Lopez Soto, 7404 W Maldonado Road, Laveen, AZ 85339; Order Denying Export Privileges**

On August 10, 2021, in the U.S. District Court for the District of Arizona, Oscar Ignacio Lopez Soto (“Soto”) was convicted of violating 18 U.S.C. 371. Specifically, Soto was convicted of conspiring to straw purchase and smuggle firearms to Mexico. As a result of his conviction, the Court sentenced Soto to 12 months and one day of confinement, with credit for time served, 36 months of supervised release and \$100 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who

has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Soto’s conviction for violating 18 U.S.C. 371. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Soto to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Soto.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Soto’s export privileges under the Regulations for a period of 10 years from the date of Soto’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Soto had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until August 10, 2031, Oscar Ignacio Lopez Soto, with a last known address of 7404 W Maldonado Road, Laveen, AZ 85339, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging

in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Soto by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Soto may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).



comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Soto and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until August 10, 2031.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10965 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Mario Ismael Quijada, Jr., 10039 W Parkway Drive, Tolleson, AZ 85353; Order Denying Export Privileges**

On January 13, 2020, in the U.S. District Court for the District of Arizona, Mario Ismael Quijada, Jr. (“Quijada”) was convicted of violating 18 U.S.C. 371. Specifically, Quijada was convicted of conspiring to straw purchase and smuggle firearms to Mexico. As a result of his conviction, the Court sentenced Quijada to 12 months and one day of confinement, with credit for time served and 36 months of supervised release.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 371, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Quijada’s conviction for violating 18 U.S.C. 371. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Quijada to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Quijada.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS,

I have decided to deny Quijada’s export privileges under the Regulations for a period of 10 years from the date of Quijada’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Quijada had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until January 13, 2030, Mario Ismael Quijada, Jr., with a last known address of 10039 W. Parkway Drive, Tolleson, AZ 85353, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted

acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Quijada by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Quijada may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Quijada and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until January 13, 2030.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10961 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Alex Yun Cheong Yue, 9723 Cortada Street, South El Monte, CA 91733; Order Denying Export Privileges**

On March 3, 2021, in the U.S. District Court for the District of Massachusetts, Alex Yun Cheong Yue (“Yue”), was

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).



convicted of violating the International Emergency Economic Powers Act (50 U.S.C. 1701, *et seq.*) (“IEEPA”) and 18 U.S.C. 554(a). Specifically, Yue was convicted of three counts of violating IEEPA for conspiring to export and knowingly and willfully exporting, attempting to export, and causing to be exported cesium atomic clocks from the United States to Hong Kong without first obtaining the required licenses from the Department and one count of violating 18 U.S.C. 554(a) for fraudulently and knowingly buying, selling, and facilitating the transportation, concealment and sale of cesium atomic clocks to Hong Kong.

As a result of his conviction, the Court sentenced Yue to time served, three years of supervised release, and a \$400 court assessment. The Court also ordered the civil forfeiture of Yue’s interest in \$5,690.67 to the United States.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, IEEPA and 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e) (Prior Convictions). In addition, any Bureau of Industry and Security (BIS) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Yue’s conviction for violating IEEPA and 18 U.S.C. 554, and has provided notice and opportunity for Yue to make a written submission to BIS, as provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”). 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Yue.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Yue’s export privileges under the Regulations for a period of 10 years from the date of Yue’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Yue had an interest at the time of his conviction.<sup>3</sup>

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 and, as amended, is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders, pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

Accordingly, it is hereby *ordered*:  
*First*, from the date of this Order until March 3, 2031, Alex Yun Cheong Yue, with a last known address of 9723 Cortada Street, South El Monte, CA 91733, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the

United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of the Export Control Reform Act (50 U.S.C. 4819(e)) and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Yue by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Yue may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Yue and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until March 3, 2031.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10963 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

**In the Matter of: David Alberto Duarte-Marquez, Calle Prol San Juan, Sur 50, Fracc San Carlos, Nogales, Sonora, Mexico 84090; Order Denying Export Privileges**

On January 26, 2021, in the U.S. District Court for the District of Arizona, David Alberto Duarte-Marquez (“Duarte-Marquez”) was convicted of violating 18 U.S.C. 554(a). Specifically, Duarte-Marquez was convicted of smuggling and attempting to smuggle from the United States to Mexico, M203 40 mm grenade launcher barrels. As a result of his conviction, the Court sentenced Duarte-Marquez to 33 months of confinement with credit for time served, three years of supervised release and a \$100 special assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”),<sup>1</sup> the export privileges of any person who has been convicted of certain offenses, including, but not limited to, 18 U.S.C. 554, may be denied for a period of up to ten (10) years from the date of his/her conviction. 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Duarte-Marquez’s conviction for violating 18 U.S.C. 554. As provided in section 766.25 of the Export Administration Regulations (“EAR” or the “Regulations”), BIS provided notice and opportunity for Duarte-Marquez to make a written submission to BIS. 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Duarte-Marquez.

Based upon my review of the record and consultations with BIS’s Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Duarte-Marquez’s export privileges under the Regulations for a period of ten years from the date of Duarte-Marquez’s conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Duarte-Marquez had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby ordered:

*First*, from the date of this Order until January 26, 2031, David Alberto Duarte-Marquez, with a last known address of Calle Prol San Juan, Sur 50, Fracc San Carlos, Nogales, Sonora, Mexico 84090, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives (“the Denied Person”), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Duarte-Marquez by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or

business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Duarte-Marquez may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Duarte-Marquez and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until January 26, 2031.

**John Sonderman**,

*Director, Office of Export Enforcement.*

[FR Doc. 2023–10884 Filed 5–22–23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### **In the Matter of: Jacobo Javier Garza-Solis, 1614 Solar Dr., Mission, TX 78572; Order Denying Export Privileges**

On October 16, 2020, in the U.S. District Court for the Southern District of Texas, Jacobo Javier Garza-Solis (“Garza-Solis”) was convicted of violating section 38 of the Arms Export Control Act (22 U.S.C 2778) (“AECA”). Specifically, Garza-Solis was convicted of knowingly and willfully exporting and causing to be exported and attempting to export and attempting to cause to be exported from the United States to Mexico, one Glock, .40 caliber, semiautomatic handgun charged with a magazine containing 13 rounds of ammunition and approximately 1,540 rounds of 7.62 x 39mm ammunition, which were designated as defense articles on the United States Munitions List, without first obtaining from the Department of State a license for such export or written authorization. As a result of his conviction, the Court sentenced Garza-Solis to 82 months in prison, three years of supervised release and a \$100 assessment.

Pursuant to section 1760(e) of the Export Control Reform Act (“ECRA”), the export privileges of any person who has been convicted of certain offenses, including, but not limited to, Section 38 of the AECA, may be denied for a period of up to ten (10) years from the date of his/her conviction. *See* 50 U.S.C. 4819(e). In addition, any Bureau of Industry and Security (“BIS”) licenses or other authorizations issued under

<sup>1</sup> ECRA was enacted on August 13, 2018, as part of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, and as amended is codified at 50 U.S.C. 4801–4852.

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730–774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

ECRA, in which the person had an interest at the time of the conviction, may be revoked. *Id.*

BIS received notice of Garza-Solis's conviction for violating Section 38 of the AECA. BIS provided notice and opportunity for Garza-Solis to make a written submission to BIS, as provided in Section 766.25 of the Export Administration Regulations ("EAR" or the "Regulations"). 15 CFR 766.25.<sup>2</sup> BIS has not received a written submission from Garza-Solis.

Based upon my review of the record and consultations with BIS's Office of Exporter Services, including its Director, and the facts available to BIS, I have decided to deny Garza-Solis's export privileges under the Regulations for a period of 10 years from the date of Garza-Solis's conviction. The Office of Exporter Services has also decided to revoke any BIS-issued licenses in which Garza-Solis had an interest at the time of his conviction.<sup>3</sup>

Accordingly, it is hereby *ordered*:

*First*, from the date of this Order until October 16, 2030, Jacobo Javier Garza-Solis, with a last known address of 1614 Solar Dr., Mission, TX 78572, and when acting for or on his behalf, his successors, assigns, employees, agents or representatives ("the Denied Person"), may not directly or indirectly participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as "item") exported or to be exported from the United States that is subject to the Regulations, including, but not limited to:

A. Applying for, obtaining, or using any license, license exception, or export control document;

B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of, forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or engaging in any other activity subject to the Regulations; or

C. Benefitting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the Regulations, or from any other activity subject to the Regulations.

*Second*, no person may, directly or indirectly, do any of the following:

A. Export, reexport, or transfer (in-country) to or on behalf of the Denied Person any item subject to the Regulations;

B. Take any action that facilitates the acquisition or attempted acquisition by the Denied Person of the ownership, possession, or control of any item subject to the Regulations that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby the Denied Person acquires or attempts to acquire such ownership, possession or control;

C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the Denied Person of any item subject to the Regulations that has been exported from the United States;

D. Obtain from the Denied Person in the United States any item subject to the Regulations with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

E. Engage in any transaction to service any item subject to the Regulations that has been or will be exported from the United States and which is owned, possessed or controlled by the Denied Person, or service any item, of whatever origin, that is owned, possessed or controlled by the Denied Person if such service involves the use of any item subject to the Regulations that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

*Third*, pursuant to section 1760(e) of ECRA (50 U.S.C. 4819(e)) and sections 766.23 and 766.25 of the Regulations, any other person, firm, corporation, or business organization related to Garza-Solis by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business may also be made subject to the provisions of this Order in order to prevent evasion of this Order.

*Fourth*, in accordance with part 756 of the Regulations, Garza-Solis may file an appeal of this Order with the Under Secretary of Commerce for Industry and Security. The appeal must be filed within 45 days from the date of this Order and must comply with the provisions of part 756 of the Regulations.

*Fifth*, a copy of this Order shall be delivered to Garza-Solis and shall be published in the **Federal Register**.

*Sixth*, this Order is effective immediately and shall remain in effect until October 16, 2030.

**John Sonderman,**

*Director, Office of Export Enforcement.*

[FR Doc. 2023-10967 Filed 5-22-23; 8:45 am]

**BILLING CODE 3510-DT-P**

## DEPARTMENT OF COMMERCE

### International Trade Administration

[A-421-815, A-455-806, A-469-825]

#### Certain Preserved Mushrooms From the Netherlands, Poland, and Spain: Antidumping Duty Orders

**AGENCY:** Enforcement and Compliance, International Trade Administration, Department of Commerce.

**SUMMARY:** Based on affirmative final determinations by the U.S. Department of Commerce (Commerce) and the U.S. International Trade Commission (ITC), Commerce is issuing antidumping duty orders on certain preserved mushrooms (preserved mushrooms) from the Netherlands, Poland, and Spain.

**DATES:** Applicable May 23, 2023.

**FOR FURTHER INFORMATION CONTACT:** Alex Cipolla at (202) 482-4956 (the Netherlands), Eliza DeLong at (202) 482-3878 (Poland), or Katherine Johnson at (202) 482-4929 (Spain), AD/CVD Operations, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230.

#### SUPPLEMENTARY INFORMATION:

##### Background

In accordance with sections 735(d) and 777(i) of the Tariff Act of 1930, as amended (the Act), on March 27, 2023, Commerce published its affirmative final determinations in the less-than-fair-value (LTFV) investigations of preserved mushrooms from the Netherlands, Poland, and Spain.<sup>1</sup> On May 11, 2023, the ITC notified Commerce of its final determinations, pursuant to section 735(d) of the Act, that an industry in the United States is materially injured within the meaning of section 735(b)(1)(A)(i) of the Act by reason of LTFV imports of preserved

<sup>2</sup> The Regulations are currently codified in the Code of Federal Regulations at 15 CFR parts 730-774 (2022).

<sup>3</sup> The Director, Office of Export Enforcement, is the authorizing official for issuance of denial orders, pursuant to amendments to the Regulations (85 FR 73411, November 18, 2020).

<sup>1</sup> See *Certain Preserved Mushrooms from the Netherlands: Final Affirmative Determination of Sales at Less Than Fair Value*, 88 FR 18115 (March 27, 2023); *Certain Preserved Mushrooms from Poland: Final Affirmative Determination of Sales at Less Than Fair Value*, 88 FR 18118 (March 27, 2023); and *Certain Preserved Mushrooms from Spain: Final Affirmative Determination of Sales at Less Than Fair Value*, 88 FR 18120 (March 27, 2023).

mushrooms from the Netherlands, Poland, and Spain.<sup>2</sup>

### Scope of the Orders

The products covered by these orders are certain preserved mushrooms from the Netherlands, Poland, and Spain. For a complete description of the scope of these orders, see the appendix to this notice.

### Antidumping Duty Orders

On May 11, 2023, in accordance with section 735(d) of the Act, the ITC notified Commerce of its final determinations in these investigations, in which it found that an industry in the United States is materially injured by reason of imports of preserved mushrooms from the Netherlands, Poland, and Spain.<sup>3</sup> Therefore, in accordance with sections 735(c)(2) and 736 of the Act, Commerce is issuing these antidumping duty orders. Because the ITC determined that imports of preserved mushrooms from the Netherlands, Poland, and Spain are materially injuring a U.S. industry, unliquidated entries of such merchandise from the Netherlands, Poland, and Spain, entered or withdrawn from warehouse for consumption, are subject to the assessment of antidumping duties.

Therefore, in accordance with section 736(a)(1) of the Act, Commerce will direct U.S. Customs and Border Protection (CBP) to assess, upon further instruction by Commerce, antidumping duties equal to the amount by which the normal value of the merchandise exceeds the export price (or constructed export price) of the merchandise, for all relevant entries of preserved mushrooms from the Netherlands, Poland, and Spain. With the exception of entries occurring after the expiration of the provisional measures period and before publication of the ITC's final affirmative injury determinations, as further described below, antidumping duties will be assessed on unliquidated entries of preserved mushrooms from the Netherlands, Poland, and Spain, entered, or withdrawn from warehouse, for consumption, on or after November 3, 2022, the date of publication of the *Preliminary Determinations*.<sup>4</sup>

<sup>2</sup> See ITC Notification Letter, Investigation Nos. 731-TA-1588-1590 (Final), dated May 11, 2023 (ITC Notification Letter); see also *Certain Preserved Mushrooms from the Netherlands, Poland, and Spain*, 88 FR 31522 (May 17, 2023).

<sup>3</sup> *Id.*

<sup>4</sup> See *Certain Preserved Mushrooms from the Netherlands: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 87 FR 66265 (November 3, 2022); *Certain Preserved Mushrooms*

### Continuation of Suspension of Liquidation and Cash Deposits

Except as noted in the "Provisional Measures" section of this notice, in accordance with section 736 of the Act, Commerce will instruct CBP to continue to suspend liquidation on all relevant entries of preserved mushrooms from the Netherlands, Poland, and Spain. These instructions suspending liquidation will remain in effect until further notice.

Commerce will also instruct CBP to require cash deposits equal to the estimated weighted-average dumping margins indicated in the tables below. Accordingly, effective on the date of publication in the **Federal Register** of the notice of the ITC's final affirmative injury determinations, CBP will require, at the same time as importers would normally deposit estimated duties on subject merchandise, a cash deposit equal to the rates listed in the tables below. The all-others rate applies to all producers or exporters not specifically listed, as appropriate.<sup>5</sup> Because the estimated weighted-average dumping margin is zero for subject merchandise produced and exported by Prochamp B.V., entries of shipments of subject merchandise from this producer/exporter combination are excluded from the antidumping duty order on subject merchandise from the Netherlands. These exclusions will not be applicable to merchandise exported to the United States by these respondents in any other producer/exporter combination or by third parties that sourced subject merchandise from the excluded producer/exporter combinations.

### Estimated Weighted-Average Dumping Margins

The estimated weighted-average dumping margins are as follows:

*from Poland: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 87 FR 66273 (November 3, 2022); and *Certain Preserved Mushrooms from Spain: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 87 FR 66262 (November 3, 2022) (collectively, *Preliminary Determinations*).

<sup>5</sup> As noted below, merchandise produced and exported by Prochamp B.V. is excluded from the Netherlands order. Therefore, the all-others rate applies to entries of any merchandise produced by Prochamp B.V. and exported by any other company or merchandise produced by any other company and exported by Prochamp B.V.

<sup>6</sup> Merchandise produced and exported by Prochamp B.V. is excluded from the Netherlands order. This exclusion does not apply to merchandise produced by Prochamp B.V. and exported by any other company or merchandise produced by any other company and exported by Prochamp B.V. Resellers of merchandise produced

Producer/exporter	Estimated weighted-average dumping margin (percent)
<b>The Netherlands</b>	
Okechamp B.V .....	146.59
Prochamp B.V .....	6 0.00
All Others .....	132.97
<b>Poland</b>	
Okechamp S.A .....	34.32
Bonduelle Polska-UL.Michala .....	57.22
Bonduelle Polska SA .....	57.22
All Others .....	34.32
<b>Spain</b>	
Eurochamp S.A.T .....	156.59
Ribebro Integral S.A.U .....	156.59
All Others .....	59.59

### Provisional Measures

Section 733(d) of the Act states that suspension of liquidation pursuant to an affirmative preliminary determination may not remain in effect for more than four months, except where exporters representing a significant proportion of exports of the subject merchandise request that Commerce extend the four-month period to no more than six months. At the request of exporters that account for a significant proportion of preserved mushrooms from the Netherlands, Poland, and Spain, Commerce extended the four-month period to six months in each of these investigations. Commerce published the preliminary determinations in these investigations on November 3, 2022.<sup>7</sup>

The extended provisional measures period, beginning on the date of publication of the *Preliminary Determinations*, ended on May 1, 2023. Therefore, in accordance with section 733(d) of the Act and our practice,<sup>8</sup> Commerce will instruct CBP to terminate the suspension of liquidation and to liquidate, without regard to antidumping duties, unliquidated entries of preserved mushrooms from the Netherlands, Poland, and Spain entered or withdrawn from warehouse, for consumption after May 1, 2023, the final day on which the provisional measures were in effect, until and through the day preceding the date of

by Prochamp B.V. are also not entitled to this exclusion.

<sup>7</sup> *Id.*

<sup>8</sup> See, e.g., *Certain Corrosion-Resistant Steel Products from India, India, the People's Republic of China, the Republic of Korea and Taiwan: Amended Final Affirmative Antidumping Determination for India and Taiwan, and Antidumping Duty Orders*, 81 FR 48390, 48392 (July 25, 2016).

publication of the ITC's final affirmative injury determinations in the **Federal Register**. Suspension of liquidation and the collection of cash deposits will resume on the date of publication of the ITC's final determinations in the **Federal Register**.

#### Establishment of the Annual Inquiry Service Lists

On September 20, 2021, Commerce published the *Final Rule* in the **Federal Register**.<sup>9</sup> On September 27, 2021, Commerce also published the *Procedural Guidance* in the **Federal Register**.<sup>10</sup> The *Final Rule* and *Procedural Guidance* provide that Commerce will maintain an annual inquiry service list for each order or suspended investigation, and any interested party submitting a scope ruling application or request for circumvention inquiry shall serve a copy of the application or request on the persons on the annual inquiry service list for that order, as well as any companion order covering the same merchandise from the same country of origin.<sup>11</sup>

In accordance with the *Procedural Guidance*, for orders published in the **Federal Register** after November 4, 2021, Commerce will create an annual inquiry service list segment in Commerce's online e-filing and document management system, Antidumping and Countervailing Duty Electronic Service System (ACCESS), available at <https://access.trade.gov>, within five business days of publication of the notice of the order. Each annual inquiry service list will be saved in ACCESS, under each case number, and under a specific segment type called "AISL-Annual Inquiry Service List."<sup>12</sup>

Interested parties who wish to be added to the annual inquiry service list for an order must submit an entry of appearance to the annual inquiry service list segment for the order in ACCESS within 30 days after the date of

publication of the order. For ease of administration, Commerce requests that law firms with more than one attorney representing interested parties in an order designate a lead attorney to be included on the annual inquiry service list. Commerce will finalize the annual inquiry service list within five business days thereafter. As mentioned in the *Procedural Guidance*,<sup>13</sup> the new annual inquiry service list will be in place until the following year, when the *Opportunity Notice* for the anniversary month of the order is published. Commerce may update an annual inquiry service list at any time as needed based on interested parties' amendments to their entries of appearance to remove or otherwise modify their list of members and representatives, or to update contact information. Any changes or announcements pertaining to these procedures will be posted to the ACCESS website at <https://access.trade.gov>.

#### Special Instructions for Petitioners and Foreign Governments

In the *Final Rule*, Commerce stated that, "after an initial request and placement on the annual inquiry service list, both petitioners and foreign governments will automatically be placed on the annual inquiry service list in the years that follow."<sup>14</sup> Accordingly, as stated above, the petitioner and Governments of the Netherlands, Poland, and Spain should submit their initial entries of appearance after publication of this notice in order to appear in the first annual inquiry service lists for these orders. Pursuant to 19 CFR 351.225(n)(3), the petitioner and the Governments of the Netherlands, Poland, and Spain will not need to resubmit their entries of appearance each year to continue to be included on the annual inquiry service list. However, the petitioner and the Governments of the Netherlands, Poland, and Spain are responsible for making amendments to their entries of appearance during the annual update to the annual inquiry service list in accordance with the procedures described above.

#### Notification to Interested Parties

This notice constitutes the antidumping duty orders with respect to preserved mushrooms from the Netherlands, Poland, and Spain pursuant to section 736(a) of the Act. Interested parties can find a list of

antidumping duty orders currently in effect at <http://enforcement.trade.gov/stats/iastats1.html>.

These antidumping duty orders are published in accordance with sections 735(e) and 736(a) of the Act and 19 CFR 351.224(e) and 19 CFR 351.211(b).

Dated: May 17, 2023.

**Lisa W. Wang,**

*Assistant Secretary for Enforcement and Compliance.*

#### Appendix—Scope of the Orders

The merchandise covered by these orders are certain preserved mushrooms, whether imported whole, sliced, diced, or as stems and pieces. The preserved mushrooms covered under these orders are the genus *Agaricus*. "Preserved mushrooms" refer to mushrooms that have been prepared or preserved by cleaning, blanching, and sometimes slicing or cutting. These mushrooms are then packed and heat sterilized in containers each holding a net drained weight of not more than 12 ounces (340.2 grams), including but not limited to cans or glass jars, in a suitable liquid medium, including but not limited to water, brine, butter, or butter sauce. Preserved mushrooms may be imported whole, sliced, diced, or as stems and pieces.

Excluded from the scope are "marinated," "acidified," or "pickled" mushrooms, which are prepared or preserved by means of vinegar or acetic acid, but may contain oil or other additives. To be prepared or preserved by means of vinegar or acetic acid, the merchandise must be a minimum 0.5 percent by weight acetic acid.

The merchandise subject to these orders is classifiable under subheadings 2003.10.0127, 2003.10.0131, and 2003.10.0137 of the Harmonized Tariff Schedule of the United States (HTSUS). The subject merchandise may also be classified under HTSUS subheadings 2003.10.0143, 2003.10.0147, and 2003.10.0153. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise under the orders is dispositive.

[FR Doc. 2023–10939 Filed 5–22–23; 8:45 am]

BILLING CODE 3510-DS-P

#### DEPARTMENT OF EDUCATION

#### Applications for New Awards; Demonstration Grants for Indian Children and Youth Program—Native American Teacher Retention Initiative

**AGENCY:** Office of Elementary and Secondary Education, Department of Education.

**ACTION:** Notice.

**SUMMARY:** The Department of Education (Department) is issuing a notice inviting applications for new awards for fiscal year (FY) 2023 for Demonstration Grants for Indian Children and Youth Program (Demonstration program)—Native

<sup>9</sup> See *Regulations to Improve Administration and Enforcement of Antidumping and Countervailing Duty Laws*, 86 FR 52300 (September 20, 2021) (*Final Rule*).

<sup>10</sup> See *Scope Ruling Application; Annual Inquiry Service List; and Informational Sessions*, 86 FR 53205 (September 27, 2021) (*Procedural Guidance*).

<sup>11</sup> *Id.*

<sup>12</sup> This segment will be combined with the ACCESS Segment Specific Information (SSI) field which will display the month in which the notice of the order or suspended investigation was published in the **Federal Register**, also known as the anniversary month. For example, for an order under case number A–000–000 that was published in the **Federal Register** in January, the relevant segment and SSI combination will appear in ACCESS as "AISL-January Anniversary." Note that there will be only one annual inquiry service list segment per case number, and the anniversary month will be pre-populated in ACCESS.

<sup>13</sup> See *Procedural Guidance*, 86 FR at 53206.

<sup>14</sup> See *Final Rule*, 86 FR at 52335.

American Teacher Retention Initiative (NATRI), Assistance Listing Number (ALN) 84.299A. This notice relates to the approved information collection under OMB control number 1810-0722.

**DATES:**

*Applications Available:* May 23, 2023.

*Deadline for Notice of Intent to Apply:* June 22, 2023.

*Date of Pre-Application Webinar:* June 7, 2023.

*Deadline for Transmittal of Applications:* July 24, 2023.

*Deadline for Intergovernmental Review:* September 20, 2023.

**ADDRESSES:** For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (87 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>. Please note that these Common Instructions supersede the version published on December 27, 2021.

**FOR FURTHER INFORMATION CONTACT:**

Donna Bussell, U.S. Department of Education, 400 Maryland Avenue SW, Room 3W239, Washington, DC 20202-6335. Telephone: 202-453-6813. Email: [donna.bussell@ed.gov](mailto:donna.bussell@ed.gov).

If you are deaf, hard of hearing, or have a speech disability and wish to access telecommunications relay services, please dial 7-1-1.

**SUPPLEMENTARY INFORMATION:****Full Text of Announcement****I. Funding Opportunity Description**

*Purpose of Program:* The purpose of the Demonstration program is to provide financial assistance to projects that develop, test, and demonstrate the effectiveness of services and programs to improve the educational opportunities and achievement of Indian students attending preschool, elementary, and secondary schools.

*Background:* The joint explanatory statement accompanying the Consolidated Appropriations Act, 2023 (joint explanatory statement) directed the Department to use at least \$2,750,000 of funds available for the Demonstration program for “a teacher retention-initiative to help address the shortage of Native American educators and expand their impact on Native American students’ education” and recommended that the initiative support “teacher leadership models to increase

the retention of effective, experienced Native American teachers.”

This competition will fund projects that meet the purpose of the Demonstration program as described in the absolute priority and encourages projects that support Native American teacher retention in keeping with the directive from the joint explanatory statement and in recognition of the positive impact that Native American teachers have on educational opportunities and achievement for Native American students. Through an invitational priority, the Department encourages projects that provide Native American teachers with leadership responsibilities, facilitate professional learning with peers, and help develop resources to meet students’ unique academic and social-emotional needs.

One critical means of improving educational opportunities and achievement of Indian children and youth is addressing the need for Native American teachers in educational settings that serve Native American children and youth. Ninety-three percent of all Native American students attend public schools, where they make up 1 percent of the total student population. (NCES, 2021).<sup>1</sup> Yet only .5 percent of public school teachers identify as American Indian/Alaska Native (NCES, 2018).<sup>2</sup>

In many schools there is “little to no exposure to Indigenous teachers and funds of knowledge” and Native American students “are burdened with various obstacles such as low teacher expectations, inappropriate tracking into special education, and unfair disciplinary practices” (Anthony-Stevens, V., Mahfouz, J., & Bisbee, Y. 2020).<sup>3</sup> By contrast, cultural acknowledgement and teaching has been linked with improved outcomes for Native American students. “[A]cademic performance is associated with educational experiences structured around local knowledge, culture, and language” (Beaulieu, Figueira, Viri, 2005).<sup>4</sup>

Research suggests that the quality of a student’s teacher matters more than

<sup>1</sup> National Center for Education Statistics (NCES), Common Core of Data, Public Elementary/ Secondary School Universe Survey, 2020–21 v.1a.

<sup>2</sup> NCES, National Teacher and Principal Survey, 2017–2018, [https://nces.ed.gov/surveys/ntps/tables/ntps1718\\_200724\\_t1n.asp](https://nces.ed.gov/surveys/ntps/tables/ntps1718_200724_t1n.asp).

<sup>3</sup> Anthony-Stevens, V., Mahfouz, J., & Bisbee, Y. (2020). Indigenous Teacher Education Is Nation Building: Reflections of Capacity Building and Capacity Strengthening in Idaho. *Journal of School Leadership*, 30(6), 541–564.

<sup>4</sup> Beaulieu, D., Figueira, A.M., Viri, D. (2005). Indigenous Teacher Education: Research-Based Model. Australian Association for Research in Education.

any other school-related factor (Rand, 2023)<sup>5</sup> and that teachers play an important role in educating students about Native American knowledge, culture, and language. When Native American and Alaska Native students in the fourth and eighth grade were asked who taught them most of what they know about Native American history, language, and traditions, they ranked teachers second only to their families (NCES, 2019).<sup>6</sup> Yet 60 percent of those students had teachers who reported never attending professional development programs aimed at developing culturally specific instructional practices for American Indian/Alaska Native students over the past two years (NCES, 2019).<sup>7</sup> Because teachers play a unique role in educating Native American students about their history, language, and traditions, thereby increasing cultural acknowledgement and thus improving educational outcomes, the Department supports projects that promote the recruitment and retention of experienced, effective, and well-trained teachers who can incorporate Native American knowledge, culture, and language into their work.

Due to the Federal Government’s unique political and legal relationship with Tribes—as set forth in the Constitution of the United States, treaties, Federal law, and Executive orders—the Department held a virtual Tribal consultation on January 24, 2023. This consultation was announced through various external listservs and social media. The Department requested input from Tribal Nations on which of the three priority options from the Secretary’s Supplemental Priority 3 (SSP3) would best support a Native American teacher retention initiative. The majority of Tribal leaders expressed that teacher training and retention ought to be prioritized, starting with option three of the SSP3, “building educator capacity by professional development for school leaders to improve mastery of leadership skills and for teachers in creating safe, healthy, inclusive, and productive classroom environments.” Other Tribal leaders expressed the importance of ensuring that teaching is seen as a viable profession for students to pursue. For example, Tribal leaders supported such enticements for teachers

<sup>5</sup> See RAND Education, “Teachers Matter: Understanding Teachers’ Impact on Student Achievement,” <http://www.rand.org/education/projects/measuring-teacher-effectiveness/teachers-matter.html> (last accessed April 26, 2023).

<sup>6</sup> NCES, National Indian Education Study, 2019, 13–14. <https://nces.ed.gov/nationsreportcard/subject/publications/studies/pdf/2021018.pdf>.

<sup>7</sup> Id. at 30.

to stay in schools serving Native American students as higher salaries and other benefits that could keep teachers from leaving the profession or finding better opportunities in higher-paying areas. Additionally, Tribal leaders also expressed the need for more “grow your own” programs that support members of a school community in becoming educators and can certify more Native people to become teachers. Tribal leaders said that exposing Native American students to more Native American teachers would allow the students to know teaching is an option for them. To incorporate Tribal leader input, the Department is including an invitational priority that allows applicants to propose a teacher retention initiative to help address the shortage of Native American educators and expand their impact on Native American students’ education.

The Department also requested input from Tribal Nations on identifying challenges that impact Native teacher retention, what can be done to overcome these challenges, and whether there are any known innovative teacher leadership models to increase retention of effective, experienced Native American teachers. The majority of Tribal leaders expressed that programs that facilitate continuing education and foster meaningful connections for teachers, such as mentorship programs and group cohorts, have proven to be effective for some school districts. There are other barriers to teacher retention, though, such as salaries and housing availability or housing costs. The Department is including an invitational priority that will benefit Native American students by encouraging projects designed to retain Native American teachers and provide important support for Native American teachers through teacher leadership models.

If an applicant chooses to address the invitational priority, the applicant could propose a project that is designed to retain educators, particularly through building teacher leadership models for teachers from traditionally underrepresented backgrounds and the communities they serve, and provide Native American teachers the opportunity to do one or more of the following:

(1) Carry out leadership responsibilities that come with increased compensation while maintaining a role as a classroom instructor. For example, leadership responsibilities could include—

(a) Collecting and analyzing data of student academic and social-emotional outcomes or teacher professional

outcomes and taking actions to improve student outcomes, teacher outcomes, or professional learning, informed by such data; or

(b) Evaluating and implementing strategies aimed at addressing areas of demonstrated need in the school where the teacher is employed, including increasing wraparound services, academic supports, family engagement, and community-based services;

(2) Facilitate, lead, or engage in sustained professional learning with peers that is collaborative and based in evidence, research, and practice;

(3) Analyze socioeconomic, cultural, and historical contexts of students and their communities, including existing pedagogy, school policies, and school-based outreach to families and community organizations, to create learning environments that are more inclusive of and responsive to student and teacher needs, including cultural, linguistic, and socioeconomic needs;

(4) Support teachers to effectively serve students with disabilities, English learners, and students who are linguistically, racially, and culturally diverse, economically disadvantaged, or historically underrepresented to increase their academic achievement or social-emotional learning; and

(5) Use, customize, or develop lesson plans, materials, and instructional resources to meet the unique needs of students to further students’ academic achievement and social and emotional learning.

Under 34 CFR 263.23(a), this Demonstration grant award is primarily for the benefit of Indians and is subject to the provisions of section 7(b) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93–638).

**Priorities:** This competition includes one absolute priority, one competitive preference priority, and one invitational priority. In accordance with 34 CFR 75.105(b)(2)(v), the absolute priority is from sections 6102(3) and 6121 of the ESEA (20 U.S.C. 7402 and 7441). In accordance with 34 CFR 75.105(b)(2)(ii), the competitive preference priority is from 34 CFR 263.21(b)(1).

**Absolute Priority:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is an absolute priority. Under 34 CFR 75.105(c)(3), we consider only applications that meet this priority.

This priority is:

**Demonstration Grants.**

To meet this priority, an applicant must propose a project to develop, test, and demonstrate the effectiveness of services and programs to improve

educational opportunities and achievement of Indian children and youth. Proposed projects must be designed to ensure that—

(a) Teachers, principals, other school leaders, and other staff who serve Indian students have the ability to provide culturally appropriate and effective instruction and supports to such students; and

(b) Indian students gain knowledge and understanding of Native communities, languages, tribal histories, traditions, and cultures.

Proposed projects must focus on one or more of the following priority areas:

(1) Activities that recognize and support the unique cultural and educational needs of Indian children and youth, and incorporate traditional leaders.

(2) Educational services that are not available to such children and youth in sufficient quantity or quality, including remedial instruction, to raise the achievement of Indian children in one or more of the subjects of English, mathematics, science, foreign languages, art, history, and geography.

(3) Comprehensive guidance, counseling, and testing services.

(4) High-quality professional development of teaching professionals and paraprofessionals.

**Competitive Preference Priority:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is a competitive preference priority. Under 34 CFR 263.21(b)(1) we award an additional 5 points to an application that meets the competitive preference priority.

This priority is:

**Tribal Lead Applicants** (0 or 5 points).

To meet this priority, an application must be submitted by an Indian Tribe, Indian organization, school funded by the Bureau of Indian Education (BIE-funded school), or Tribal college or university (TCU) that is eligible to participate in the Demonstration Grants for Indian Children and Youth program. A group application submitted by a consortium that meets the requirements of 34 CFR 75.127 through 75.129 or is eligible to receive the preference only if the lead applicant for the consortium is the Indian Tribe, Indian organization, BIE-funded school, or TCU.

**Invitational Priority:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is an invitational priority. Under 34 CFR 75.105(c)(1) an application that meets the priority receives no competitive or absolute



preference over applications that do not meet the priority.

This priority is:

*Native American Teacher Retention Initiative (NATRI).*

To meet this priority, an applicant must propose an educator retention initiative to help address the shortage of Native American educators and expand their impact on Native American students' education. The initiative must support teacher leadership models to increase the retention of effective, experienced Native American teachers who will assist in ensuring that Native American students gain knowledge and understanding of Native communities, languages, Tribal histories, traditions, and cultures as outlined in the absolute priority for this competition.

For purposes of this priority—

“Educator” means an individual who is an early learning educator, teacher, principal or other school leader, specialized instructional support personnel (e.g., school psychologist, counselor, school social worker, early intervention service personnel), paraprofessional, or faculty.

“Native American” means a member of a federally recognized Indian Tribe.

*Application Requirements:* For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, applicants must meet the following application requirements, which are from section 6121 of the ESEA (20 U.S.C. 7441) and 34 CFR 263.22. Each application must contain—

(a) A description of how Indian Tribes and parents and families of Indian children and youth have been, and will be, involved in developing and implementing the proposed activities;

(b) Assurances that the applicant will participate, at the request of the Secretary, in any national evaluation of this program;

(c) Information demonstrating that the proposed project is evidence-based, where applicable, or is based on an existing evidence-based program that has been modified to be culturally appropriate for Indian students;

(d) A description of how the applicant will continue the proposed activities over the grant period is over; and

*Statutory Hiring Preference:*

Awards are subject to the provisions of section 7(b) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93–638). To the greatest extent feasible, a grantee must—

(1) Give to Indians preferences and opportunities for training and employment in connection with the administration of the grant; and

(2) Give to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452(e)), preference in the award of contracts in connection with the administration of the grant.

For purposes of this preference, an Indian is a member of any federally recognized Indian Tribe. (25 U.S.C. 1452(b)).

*Definitions:* The following definitions apply to this competition. The definition of “evidence-based” is from section 8101(21) of the ESEA (20 U.S.C. 7801(21)). The definitions of “Indian,” “Indian organization,” “parent,” “professional development,” and “Tribal college or university” are from 34 CFR 263.20. The definitions of “demonstrates a rationale,” “relevant outcome,” “project component,” and “logic model” are from 34 CFR 77.1. The definition of “traditional leaders” is from section 103 of the Native American Languages Act (25 U.S.C. 2902).

*Demonstrates a rationale* means a key project component included in the project's logic model is informed by research or evaluation findings that suggest the project component is likely to improve relevant outcomes.

*Evidence-based*, when used with respect to a State, local educational agency, or school activity, means an activity, strategy, or intervention that—

(1) Demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(i) Strong evidence from at least 1 well-designed and well-implemented experimental study;

(ii) Moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(iii) Promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(2)(i) Demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(ii) Includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

*Indian* means an individual who is—

(1) A member of an Indian tribe or band, as membership is defined by the Indian tribe or band, including any tribe or band terminated since 1940, and any tribe or band recognized by the State in which the tribe or band resides;

(2) A descendant of a parent or grandparent who meets the

requirements described in paragraph (1) of this definition;

(3) Considered by the Secretary of the Interior to be an Indian for any purpose;

(4) An Eskimo, Aleut, or other Alaska Native; or

(5) A member of an organized Indian group that received a grant under the Indian Education Act of 1988 as it was in effect on October 19, 1994.

*Indian organization* means an organization that—

(1) Is legally established—

(i) By tribal or inter-tribal charter or in accordance with State or tribal law; and

(ii) With appropriate constitution, by-laws, or articles of incorporation;

(2) Includes in its purposes the promotion of the education of Indians;

(3) Is controlled by a governing board, the majority of which is Indian;

(4) If located on an Indian reservation, operates with the sanction of or by charter from the governing body of that reservation;

(5) Is neither an organization or subdivision of, nor under the direct control of, any institution of higher education or TCU; and

(6) Is not an agency of State or local government.

*Logic model* (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (i.e., the active “ingredients” that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

*Professional development* means in-service training offered to enhance the skills and abilities of individuals that may be part of, but not exclusively, the activities provided in a Demonstration Grants for Indian Children and Youth program.

*Project component* means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (e.g., training teachers on instructional practices for English learners and follow-on coaching for these teachers).

*Relevant outcome* means the student outcome(s) or other outcome(s) the key project component is designed to improve, consistent with the specific goals of the program.

*Traditional leaders* includes Native Americans who have special expertise in Native American culture and Native American languages.

*Tribal College or University (TCU)* means an accredited college or



university within the United States cited in section 532 of the Equity in Educational Land-Grant Status Act of 1994, any other institution that qualifies for funding under the Tribally Controlled College or University Assistance Act of 1978, and the Navajo Community College, authorized in the Navajo Community College Assistance Act of 1978.

*Program Authority:* 20 U.S.C. 7441.

*Note:* Projects will be awarded and must be operated in a manner consistent with the nondiscrimination requirements contained in Federal civil rights laws.

*Applicable Regulations:* (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) The regulations for this program in 34 CFR part 263.

*Note:* The regulations in 34 CFR part 79 apply to all applicants except federally recognized Indian Tribes.

*Note:* The regulations in 34 CFR part 86 apply to institutions of higher education only.

## II. Award Information

*Type of Award:* Discretionary grants.

*Estimated Available Funds:* \$2,750,000.

Contingent upon the availability of funds and the quality of applications, we may make additional awards in subsequent years from the list of unfunded applications from this competition.

*Estimated Range of Awards:* \$400,000–\$500,000.

*Estimated Average Size of Awards:* \$450,000.

*Estimated Number of Awards:* 6.

*Note:* The Department is not bound by any estimates in this notice.

*Project Period:* Up to 60 months.

*Note:* Under ESEA section 6121(d)(1)(C), the Secretary awards grants for an initial period of not more than 36 months and may renew them for up to 24 months if the Secretary determines that the grantee has made substantial progress in carrying out activities under the grant.

## III. Eligibility Information

1. *Eligible Applicants:* The following entities, either alone or in a consortium, are eligible under this program:

- (a) A State educational agency.
- (b) A local educational agency (LEA), including charter schools that are considered LEAs under State law.
- (c) An Indian Tribe.
- (d) An Indian organization.
- (e) A federally supported elementary school or secondary school for Indian students.

2. a. *Cost Sharing or Matching:* This competition does not require cost sharing or matching.

b. *Indirect Cost Rate Information:* This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see [www2.ed.gov/about/offices/list/ocfo/intro.html](http://www2.ed.gov/about/offices/list/ocfo/intro.html).

c. *Administrative Cost Limitation:* Under ESEA section 6121(e) and the Consolidated Appropriations Act, 2023, no more than 5 percent of the funds awarded for a grant may be used for direct administrative costs.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application.

4. *Other:* Projects funded under this competition should budget two personnel for a 2-day project directors' meeting in Washington, DC, during each year of the project period.

## IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (87 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>. Please note that these Common Instructions supersede the version published on December 27, 2021.

2. *Submission of Proprietary Information:* Given the types of projects that may be proposed in applications for the Demonstration program, your application may include business information that you consider proprietary. In 34 CFR 5.11 we define "business information" and describe the process we use in determining whether any of that information is proprietary and, thus, protected from disclosure

under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended).

Because we plan to make successful applications available to the public by posting them on our website, you may wish to request confidentiality of business information.

Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under "Other Attachments Form," please list the page number or numbers on which we can find this information. For additional information please see 34 CFR 5.11(c).

3. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

4. *Funding Restrictions:* We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative to no more than 30 pages, and (2) use the following standards:

- A "page" is 8.5" × 11", on one side only, with 1" margins at the top, bottom, and both sides.
- Double space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, references, and captions, as well as all text in charts, tables, figures, and graphs.
- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).
- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; or the one-page abstract, the resumes, the bibliography, the letter(s) of support, or the signed consortium agreement. However, the recommended page limit does apply to all of the application narrative. An application will not be disqualified if it exceeds the recommended page limit.

6. *Notice of Intent to Apply:* The Department will be able to review grant

applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify us of their intent to submit an application. To do so, please email the program contact person listed under **FOR FURTHER INFORMATION CONTACT** with the subject line "Intent to Apply," and include the applicant's name and a contact person's name and email address. Applicants that do not submit a notice of intent to apply may still apply for funding; applicants that do submit a notice of intent to apply are not bound to apply or bound by the information provided.

## V. Application Review Information

1. *Selection Criteria:* The selection criteria for this competition are from 34 CFR 263.24, 34 CFR 75.200, and 34 CFR 75.210. The maximum score for addressing each criterion and factor within each criterion is included in parentheses. The maximum score for these criteria is 100 points.

(a) *Need for project* (5 points). The Secretary considers the need for the proposed project. In determining the need for the proposed project, the Secretary considers the magnitude of the need for the services to be provided or the activities to be carried out by the proposed project. (Up to 5 points)

(b) *Quality of project design* (25 points).

The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. (Up to 5 points)

(2) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs. (Up to 5 points)

(3) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework. (Up to 5 points)

(4) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance. (Up to 5 points)

(5) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice. (Up to 5 points)

(c) *Quality of project services* (31 points).

The Secretary considers the quality of the project services. In determining the quality of the services to be provided by the proposed project, the Secretary considers the quality and sufficiency of strategies for ensuring equal access and treatment for eligible project participants who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. (Up to 3 points)

In addition, the Secretary considers the following factors:

(1) The extent to which the training or professional development services to be provided by the proposed project are likely to alleviate the personnel shortages that have been identified or are the focus of the proposed project. (Up to 13 points)

(2) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services. (Up to 15 points)

(d) *Quality of project personnel* (15 points).

The Secretary considers the quality of the personnel who will carry out the proposed project. In determining the quality of project personnel, the Secretary considers the extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. (Up to 5 points)

In addition, the Secretary considers the following factors:

(1) The qualifications, including relevant training and experience, of the project director or principal investigator. (Up to 5 points)

(2) The qualifications, including relevant training and experience, of key project personnel. (Up to 5 points)

(e) *Adequacy of resources* (8 points).

The Secretary considers the adequacy of resources for the proposed project. In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

(1) The extent to which the budget is adequate to support the proposed project. (Up to 3 points)

(2) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of Federal funding. (Up to 5 points).

(f) *Quality of the management plan* (10 points).

The Secretary considers the quality of the management plan for the proposed

project. In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

(i) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks. (Up to 5 points)

(ii) The extent to which the time commitments of the project director and principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project. (Up to 5 points)

(g) *Quality of the project evaluation* (6 points).

The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation provide for examining the effectiveness of project implementation strategies. (Up to 3 points)

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings. (Up to 3 points)

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

3. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.206, before awarding grants under this program, the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions and, under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards

in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

4. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently \$250,000), under 2 CFR 200.206(a)(2) we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds \$10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed \$10,000,000.

5. *In General:* In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with:

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

## VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We also may notify you informally.

If your application is not evaluated or not selected for funding, we notify you.

### 2. *Administrative and National Policy Requirements:*

We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current

performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to [www.ed.gov/fund/grant/apply/appforms/appforms.html](http://www.ed.gov/fund/grant/apply/appforms/appforms.html).

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case the Secretary establishes a data collection period.

5. *Performance Measures:* For the purposes of Department reporting under 34 CFR 75.110, we developed the following performance measure for measuring the overall effectiveness of NATRI:

The total number of Native American educators employed as educators at the beginning of the grant period who are still educators at the end of the performance period, if applicable.

The measure constitutes the Department's indicator of success for this program. Consequently, we advise an applicant for a grant under this program to carefully consider this measure in conceptualizing the approach to, and evaluation for, its proposed project. Each grantee will be required to provide, in its annual performance and final reports, data about its progress in meeting this measure.

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things: whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

## VII. Other Information

*Accessible Format:* On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain

this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

**Electronic Access to This Document:** The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other Department documents published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF, you must have Adobe Acrobat Reader, which is available free at the site.

You may also access Department documents published in the **Federal Register** by using the article search feature at [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

**James F. Lane,**

*Principal Deputy Assistant Secretary,  
Delegated the Authority to Perform the  
Functions and Duties of the Assistant  
Secretary, Office of Elementary and  
Secondary Education.*

[FR Doc. 2023-10901 Filed 5-22-23; 8:45 am]

BILLING CODE 4000-01-P

## DEPARTMENT OF EDUCATION

### Applications for New Awards; Education Innovation and Research (EIR) Program—Mid-Phase Grants

**AGENCY:** Office of Elementary and Secondary Education, Department of Education.

**ACTION:** Notice.

**SUMMARY:** The Department of Education (Department) is issuing a notice inviting applications for fiscal year (FY) 2023 for the EIR program—Mid-phase Grants, Assistance Listing Number 84.411B (Mid-phase Grants). This notice relates to the approved information collection under OMB control number 1894-0006.

**DATES:**

*Applications Available:* May 25, 2023.

*Deadline for Notice of Intent To Apply:* June 22, 2023.

*Deadline for Transmittal of Applications:* July 12, 2023.

*Deadline for Intergovernmental Review:* September 11, 2023.

*Pre-Application Information:* The Department will post additional competition information for prospective

applicants on the EIR program website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>.

**ADDRESSES:** For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (7 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>. Please note that these Common Instructions supersede the version published on December 27, 2021.

**FOR FURTHER INFORMATION CONTACT:**

Yvonne Crockett, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-5900. Telephone: 202-987-1753. Email: [eir@ed.gov](mailto:eir@ed.gov).

If you are deaf, hard of hearing, or have a speech disability and wish to access telecommunications relay services, please dial 7-1-1.

**SUPPLEMENTARY INFORMATION:**

**Full Text of Announcement**

**I. Funding Opportunity Description**

*Purpose of Program:* The EIR program, established under section 4611 of the Elementary and Secondary Education Act, as amended (ESEA), provides funding to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based (as defined in this notice), field-initiated innovations to improve student achievement and attainment for high-need students; and to rigorously evaluate such innovations. The EIR program is designed to generate and validate solutions to persistent education challenges and to support the expansion of those solutions to serve substantially more students.

The central design element of the EIR program is its multi-tier structure that links the amount of funding an applicant may receive to the quality of the evidence supporting the efficacy of the proposed project. One of the program's goals is for projects to build evidence that will allow them advance through EIR's grant tiers: "Early-phase," "Mid-phase," and "Expansion." "Early-phase," "Mid-phase," and "Expansion" grants differ in terms of the evidence of effectiveness required to be considered for funding, the expectations regarding the kind of

evidence and information funded projects should produce, the scale of funded projects, and, consequently, the amount of funding available to support each type of project.

Mid-phase grants are supported by moderate evidence (as defined in this notice). Mid-phase grants provide funding for the implementation and rigorous evaluation of a program, which has been successfully implemented under an Early-phase grant or other similar effort, such as developing and testing an innovative education practice at a local level, for the purpose of measuring the program's impact and cost-effectiveness.

This notice invites applications for Mid-phase grants only. The notices inviting applications for Early-phase and Expansion grants are published elsewhere in this issue of the **Federal Register**.

*Background*

While this notice is for the Mid-phase tier only, the premise of the EIR program is that new and innovative educational programs and practices can help to overcome the persistent and significant challenges to student success, particularly for underserved and high-need students. Raise the Bar: Lead the World is the Department's call to action to transform prekindergarten (pre-K) through grade 12 education and unite around what truly works by promoting academic excellence, boldly improving learning conditions, and preparing of our Nation's students for global competitiveness. Consistent with that call to action, the priorities used in this competition advance Raise the Bar's goals to promote academic excellence and boldly improve learning conditions.

In FY 2023, the Department is particularly interested in projects that propose services and activities that help to not only recover from the COVID-19 pandemic but reimagine schools and transform our education system. The priorities used in this competition are designed to create conditions under which students have equitable access to high-quality learning opportunities and experiences.<sup>1</sup>

*Note:* The EIR program statute refers to "high-need students" but does not

<sup>1</sup> U.S. Secretary of Education Miguel Cardona laid out his vision for the direction the Department will follow in 2023 to promote academic excellence, improve learning conditions, and prepare students for a world where global engagement is critical to our Nation's standing. In his address, Secretary Cardona remarked that "Raise the Bar: Lead the World" is not a list of new priorities, but a call to strengthen our will to transform education for the better, building on approaches that we know work in education. More information is available at <https://www.ed.gov/raisethebar>.

define the term, which allows applicants to define it for purposes of their proposed project, population, and setting. Note that, for the EIR program, addressing the needs of underserved students (as defined in this notice) is one way to address the statutory requirement for serving “high-need students.”

The EIR program is rooted in innovation; the program is not intended to provide support for practices that are already commonly implemented by educators, unless significant adaptations and evaluation of such practices might determine if they can accelerate achievement or increase the likelihood that the practices can be widely, efficiently, and effectively implemented in new populations and settings. If evaluation demonstrates that innovations are supported by moderate or strong evidence (both as defined in this notice), EIR seeks applicants who can replicate and test these innovations in new populations and settings.

As an EIR project is implemented, grantees are encouraged to learn more about how the practices improve student achievement and attainment as well as to develop increasingly rigorous evidence of effectiveness and new strategies to efficiently and cost-effectively scale to new school districts, regions, and States. We encourage applicants to develop a logic model (as defined in this notice), theory of action, or another conceptual framework that includes the goals, objectives, outcomes, and key project components (as defined in this notice) of the project that can support systems of continuous improvement.

All EIR applicants and grantees should also consider how they need to develop their organizational capacity, project financing, or business plans to sustain their projects and continue implementation and adaptation after Federal funding ends. The Department intends to provide grantees with technical assistance to support dissemination, scaling, and sustainability efforts.

Mid-phase projects are expected to refine and expand the use of practices with prior evidence of effectiveness to improve outcomes for underserved and high-need students. They are also expected to generate information about an intervention’s effectiveness, such as for whom and in which contexts a practice is most effective, including cost considerations such as economies of scale. Mid-phase projects are uniquely positioned to help answer questions about the process of scaling a practice to the regional or national levels (both as defined in this notice) across

geographies as well as locale types. Mid-phase grantees are encouraged to consider how the cost structure of a practice can change as the intervention scales. Additionally, grantees may want to consider how their project will balance implementation fidelity and flexibility for scaling.

As Mid-phase applicants are developing their required program evaluations, they are encouraged to design it with the potential to meet strong evidence. Mid-phase grantees should measure the cost-effectiveness of their practices using administrative or other readily available data. These types of efforts are critical to sustaining and scaling EIR-funded effective practices after the EIR grant period ends, assuming that the practice has positive effects on important student outcomes. In order to support adoption or replication by other entities, the evaluation of a Mid-phase project should identify and codify the core elements of the EIR-supported practice that the project implements and examine the effectiveness of the project for any new populations or settings that are included in the project. The Department intends to provide grantees (including the independent evaluators they contract with as part of their project) with evaluation technical assistance. This could include grantees and their independent evaluators providing to the Department or its contractor updated comprehensive evaluation plans in a format as requested by the technical assistance provider and using such tools as the Department may request. Grantees will be encouraged to update this evaluation plan at least annually to reflect any changes to the evaluation, with updates consistent with the scope and objectives of the approved application.

The FY 2023 Mid-phase competition includes five absolute priorities and one competitive preference priority. All Mid-phase applicants must address Absolute Priority 1. Mid-phase applicants are also required to address one of the other four absolute priorities (applicants may not submit under more than one of the other four absolute priorities). Applicants have the option of addressing the competitive preference priority and may opt to do so regardless of the absolute priority they select.

Absolute Priority 1—Moderate Evidence establishes the evidence requirement for this tier of grants. All Mid-phase applicants must submit prior evidence of effectiveness that meets the moderate evidence standard.

Absolute Priority 2—Field-Initiated Innovations—General gives applicants the option to propose projects that are

field-initiated innovations to improve student achievement and attainment.

Absolute Priority 3—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Science, Technology, Engineering, or Mathematics (STEM) is intended to support innovations to improve student achievement and attainment in the STEM education field, consistent with efforts to ensure our Nation’s economic competitiveness by improving and expanding STEM learning and engagement.

In Absolute Priority 3, the Department recognizes the importance of funding pre-K through grade 12 STEM education and anticipates that projects would expand opportunities for high-need students. Within this absolute priority, applicants may focus on expanding opportunities in STEM education, including computer science, for underrepresented students in STEM education, including students of color, girls, English learners, students with disabilities, youth from rural communities, and youth from families living at or below the poverty line, to help reduce the enrollment and achievement gaps in a manner consistent with nondiscrimination requirements contained in Federal civil rights laws.

Absolute Priority 4—Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs is intended to promote high-quality projects that support student well-being. The disruption caused by the pandemic, along with the growth in youth mental health distress, continue to impact student well-being. It is critical to provide support for students’ social and emotional needs, not only to benefit student well-being, but also to support their academic success as student social, emotional, and academic development are interconnected.

Absolute Priority 5—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Educator Recruitment and Retention is intended to identify and scale up models to elevate and strengthen the educator workforce in ways that prioritize innovation in recruiting and retaining educators in supporting high-need students. Applicants are encouraged to address fundamental challenges schools face in recruiting and retaining qualified educators, by addressing the additional responsibilities, burdens, and challenges educators have faced throughout the pandemic and may persist beyond it. For example, projects may address improving supports for

educators that enhance the ability of schools to recruit and retain staff (e.g., strategies to support educator wellbeing or structuring staffing and schedules to ensure educators and students are appropriately supported) and increasing access to leadership opportunities that can lead to increased pay and improved retention for fully certified, experienced, and effective educators, while expanding the impact of great teachers within and beyond their classrooms. Projects may support the recruitment and retention of all school staff or specific staff with acute recruitment and retention challenges (e.g., personnel serving students with disabilities).

The competitive preference priority is intended to encourage applicants to propose projects that involve (as applicants or partners) entities underrepresented in the program's portfolio of grants. The Department is eager to increase the volume of projects and partners from entities including community colleges (as defined in this notice), historically Black colleges and universities (as defined in this notice), Tribal Colleges and Universities (as defined in this notice), and minority-serving institutions (as defined in this notice). The Department expects applicants addressing this priority will raise the bar to reimagine schools through partnerships with underrepresented groups in ways that benefit underserved and high-need students.

The Department seeks projects that develop and evaluate evidence-based, field-initiated innovations to address inequities in our country's education system. The proposed innovations should be designed to better enable students to access educational opportunities to succeed in school and reach their full potential.

Through these priorities, the Department intends to advance innovation, build evidence, and address the learning and achievement of underserved and high-need students in pre-K through grade 12.

**Priorities:** This notice includes five absolute priorities and one competitive preference priority. In accordance with 34 CFR 75.105(b)(2)(ii), Absolute Priority 1 is from the list of program priorities established in 34 CFR 75.226(d)(2). In accordance with 34 CFR 75.105(b)(2)(iv), Absolute Priority 2 is from the program statute in section 4611(a)(1)(A) of the ESEA. In accordance with 34 CFR 75.105(b)(2)(iv), Absolute Priorities 3, 4, and 5 are from the program statute in section 4611(a)(1)(A) of the ESEA and the Supplemental Priorities and

Definitions for Discretionary Grant Programs, published in the **Federal Register** on December 10, 2021 (86 FR 70612) (Supplemental Priorities). The competitive preference priority is from the Supplemental Priorities.

In the Mid-phase grant competition, Absolute Priorities 2, 3, 4, and 5 each constitute separate funding categories. The Secretary intends to award grants under each of these absolute priorities provided that applications submitted are of sufficient quality. To ensure that applicants are reviewed under the absolute priority most relevant to their proposed project, applicants must clearly identify the specific absolute priority that the proposed project addresses. If an applicant is interested in proposing separate projects (e.g., one that addresses Absolute Priority 2 and another that addresses Absolute Priority 3), it must submit separate applications.

**Absolute Priorities:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these priorities are absolute priorities. Under 34 CFR 75.105(c)(3), we consider only applications that meet Absolute Priority 1—Moderate Evidence, and one additional absolute priority (Absolute Priority 2, Absolute Priority 3, Absolute Priority 4, or Absolute Priority 5).

These priorities are:

**Absolute Priority 1—Moderate Evidence**

Projects supported by evidence that meets the conditions in the definition of “moderate evidence.”

**Note:** An applicant must identify up to two studies to be reviewed against the What Works Clearinghouse (WWC) Handbooks (as defined in this notice) for the purposes of meeting the definition of “moderate evidence.” The studies may have been conducted by the applicant or by a third party. An applicant must clearly identify the citations for each study in the Evidence form. An applicant must ensure that all cited studies are available to the Department from publicly available sources and provide links or other guidance indicating where each is available. The Department may not review a study that an applicant fails to clearly identify for review.

In addition to including up to two study citations, an applicant must provide in the Evidence form the following information: (1) the positive student outcomes the applicant intends to replicate under its Mid-phase grant and how these outcomes correspond to the positive student outcomes in the cited studies; (2) the characteristics of the population or setting to be served under its Mid-phase grant and how

these characteristics correspond to the characteristics of the population or setting in the cited studies; and (3) the practice(s) the applicant plans to implement under its Mid-phase grant and how the practice(s) correspond with the practice(s) in the cited studies.

If the Department determines that an applicant has provided insufficient information, the applicant will not have an opportunity to provide additional information. However, if the WWC team reviewing evidence determines that a study does not provide enough information on key aspects of the study design, such as sample attrition or equivalence of intervention and comparison groups, the WWC may submit a query to the study author(s) to gather information for use in determining a study rating. Authors would be asked to respond to queries within 10 business days. Should the author query remain incomplete within 14 days of the initial contact to the study author(s), the study may be deemed ineligible under the grant competition. After the grant competition closes, the WWC will, for purposes of its own curation of studies, continue to include responses to author queries and make updates to study reviews as necessary. However, no additional information will be considered after the competition closes and the initial timeline established for response to an author query passes.

**Absolute Priority 2—Field-Initiated Innovations—General**

Projects that are designed to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students.

**Absolute Priority 3—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: STEM**

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students; and

(b) Promote educational equity and adequacy in resources and opportunity for underserved students—

(1) In one or more of the following educational settings:

- (i) Early learning programs.
- (ii) Elementary school.
- (iii) Middle school.
- (iv) High school.

(v) Career and technical education programs.

(vi) Out-of-school-time settings.  
 (vii) Alternative schools and programs.

(viii) Juvenile justice system or correctional facilities; and

(2) That examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (*e.g.*, that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including science, technology, engineering, and mathematics (STEM), including computer science coursework.

*Absolute Priority 4—Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs*

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students; and

(b) Improve students' social, emotional, academic, and career development, with a focus on underserved students, through one or more of the following priority areas:

(1) Developing and supporting educator and school capacity to support social and emotional learning and development that—

(i) Fosters skills and behaviors that enable academic progress;

(ii) Identifies and addresses conditions in the learning environment, that may negatively impact social and emotional well-being for underserved students, including conditions that affect physical safety; and

(iii) Is trauma-informed, such as addressing exposure to community-based violence and trauma specific to military- or veteran-connected students (as defined in this notice).

(2) Creating education or work-based settings that are supportive, positive, identity-safe and inclusive with regard to race, ethnicity, culture, language, and disability status, through one or more of the following activities:

(i) Developing trusting relationships between students (including underserved students), educators, families, and community partners.

(ii) Providing high-quality professional development opportunities designed to increase engagement and belonging and build asset-based mindsets for educators working in and throughout schools.

(iii) Engaging students (including underserved students), educators, families, and community partners from

diverse backgrounds and representative of the community as partners in school climate review and improvement efforts.

(iv) Developing and implementing inclusive and culturally informed discipline policies and addressing disparities in school discipline policy by identifying and addressing the root causes of those disparities, including by involving educators, students, and families in decision-making about discipline procedures and providing training and resources to educators.

(3) Providing multitiered systems of supports that address learning barriers both in and out of the classroom, that enable healthy development and respond to students' needs and which may include evidence-based trauma-informed practices and professional development for educators on avoiding deficit-based approaches.

(4) Developing or implementing policies and practices, consistent with applicable Federal law, that prevent or reduce significant disproportionality on the basis of race or ethnicity with respect to the identification, placement, and disciplining of children or students with disabilities (as defined in this notice).

(5) Providing students equitable access that is inclusive, with regard to race, LGBTQI+, ethnicity, culture, language, and disability status, to social workers, psychologists, counselors, nurses, or mental health professionals and other integrated services and supports, which may include in early learning environments.

(6) Preparing educators to implement project-based or experiential learning opportunities for students to strengthen their metacognitive skills, self-direction, self-efficacy, competency, or motivation, including through instruction that connects to students' prior knowledge and experience; provides rich, engaging, complex, and motivating tasks; and offers opportunities for collaborative learning.

(7) Creating and implementing comprehensive schoolwide frameworks (such as small schools or learning communities, advisory systems, or looping educators) that support strong and consistent student and educator relationships.

(8) Fostering partnerships, including across government agencies (*e.g.*, housing, human services, employment agencies), local educational agencies, community-based organizations, adult learning providers, and postsecondary education intuitions, to provide comprehensive services to students and families that support students' social, emotional, mental health, and academic needs, and that are inclusive with

regard to race, ethnicity, culture, language, and disability status.

*Absolute Priority 5—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Educator Recruitment and Retention*

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students; and

(b) Promote educational equity and adequacy in resources and opportunity for underserved students—

(1) In one or more of the following educational settings:

(i) Early learning programs.

(ii) Elementary school.

(iii) Middle school.

(iv) High school.

(v) Career and technical education programs.

(vi) Out-of-school-time settings.

(vii) Alternative schools and programs.

(viii) Juvenile justice system or correctional facilities; and

(2) That examine the sources of inequity and inadequacy and implement responses, and that may include one or more of the following:

(i) Increasing the number and proportion of experienced, fully certified, in-field, and effective educators, and educators from traditionally underrepresented backgrounds or the communities they serve, to ensure that underserved students have educators from those backgrounds and communities and are not taught at disproportionately higher rates by uncertified, out-of-field, and novice teachers compared to their peers.

*Note:* All strategies to increase the diversity of educators must comply with the nondiscrimination requirements contained in Federal civil rights laws.

(ii) Improving the preparation, recruitment, and early career support and development of educators in shortage areas or hard to staff schools.

(iii) Improving the retention of fully certified, experienced, and effective educators in high-need schools or shortage areas.

*Competitive Preference Priority:* For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is a competitive preference priority. Under 34 CFR 75.105(c)(2)(i), we award up to an additional 5 points to an application, depending on how well the application addresses the competitive preference priority.



The priority is:

*Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 5 points).*

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in this notice).

(b) Historically Black colleges and universities (as defined in this notice).

(c) Tribal Colleges and Universities (as defined in this notice).

(d) Minority-serving institutions (as defined in this notice).

*Definitions:* The following definitions apply to this program. The definitions of “baseline,” “experimental study,” “logic model,” “moderate evidence,” “national level,” “nonprofit,” “performance measure,” “performance target,” “project component,” “quasi-experimental design study,” “regional level,” “relevant outcome,” “strong evidence,” and “What Works Clearinghouse Handbooks (WWC Handbooks)” are from 34 CFR 77.1. The definitions of “community college,” “children or students with disabilities,” “disconnected youth,” “early learning,” “educator,” “English learner,” “historically Black colleges and universities,” “military- or veteran-connected student,” “minority-serving institutions,” “Tribal College or University,” and “underserved students” are from the Supplemental Priorities. The definitions of “evidence-based,” “local educational agency” and “State educational agency” are from section 8101 of the ESEA.

*Baseline* means the starting point from which performance is measured and targets are set.

*Children or students with disabilities* means children with disabilities as defined in section 602(3) of the Individuals with Disabilities Education Act (IDEA) (20 U.S.C. 1401(3)) and 34 CFR 300.8, or students with disabilities, as defined in the Rehabilitation Act of 1973 (29 U.S.C. 705(37), 705(202)(B)).

*Community college* means “junior or community college” as defined in section 312(f) of the Higher Education Act of 1965, as amended (HEA).

*Disconnected youth* means an individual, between the ages 14 and 24, who may be from a low-income background, experiences homelessness, is in foster care, is involved in the justice system, or is not working or not enrolled in (or at risk of dropping out of) an educational institution.

*Early learning* means any (a) State-licensed or State-regulated program or

provider, regardless of setting or funding source, that provides early care and education for children from birth to kindergarten entry, including, but not limited to, any program operated by a child care center or in a family child care home; (b) program funded by the Federal Government or State or local educational agencies (including any IDEA-funded program); (c) Early Head Start and Head Start program; (d) nonrelative child care provider who is not otherwise regulated by the State and who regularly cares for two or more unrelated children for a fee in a provider setting; and (e) other program that may deliver early learning and development services in a child’s home, such as the Maternal, Infant, and Early Childhood Home Visiting Program; Early Head Start; and Part C of IDEA.

*Educator* means an individual who is an early learning educator, teacher, principal or other school leader, specialized instructional support personnel (e.g., school psychologist, counselor, school social worker, early intervention service personnel), paraprofessional, or faculty.

*English learner* means an individual who is an English learner as defined in section 8101(20) of the ESEA, or an individual who is an English language learner as defined in section 203(7) of the Workforce Innovation and Opportunity Act.

*Evidence-based* means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) strong evidence from at least 1 well-designed and well-implemented experimental study;

(II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

*Experimental study* means a study that is designed to compare outcomes between two groups of individuals (such as students) that are otherwise equivalent except for their assignment to either a treatment group receiving a project component or a control group that does not. Randomized controlled

trials, regression discontinuity design studies, and single-case design studies are the specific types of experimental studies that, depending on their design and implementation (e.g., sample attrition in randomized controlled trials and regression discontinuity design studies), can meet What Works Clearinghouse (WWC) standards without reservations as described in the WWC Handbooks (as defined in this notice):

(i) A randomized controlled trial employs random assignment of, for example, students, teachers, classrooms, or schools to receive the project component being evaluated (the treatment group) or not to receive the project component (the control group).

(ii) A regression discontinuity design study assigns the project component being evaluated using a measured variable (e.g., assigning students reading below a cutoff score to tutoring or developmental education classes) and controls for that variable in the analysis of outcomes.

(iii) A single-case design study uses observations of a single case (e.g., a student eligible for a behavioral intervention) over time in the absence and presence of a controlled treatment manipulation to determine whether the outcome is systematically related to the treatment.

*Historically Black colleges and universities* means colleges and universities that meet the criteria set out in 34 CFR 608.2.

*Local educational agency (LEA)* means:

(a) In General. A public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or of or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public elementary schools or secondary schools.

(b) Administrative Control and Direction. The term includes any other public institution or agency having administrative control and direction of a public elementary school or secondary school.

(c) Bureau of Indian Education Schools. The term includes an elementary school or secondary school funded by the Bureau of Indian Education but only to the extent that including the school makes the school eligible for programs for which specific eligibility is not provided to the school



in another provision of law and the school does not have a student population that is smaller than the student population of the LEA receiving assistance under the ESEA with the smallest student population, except that the school shall not be subject to the jurisdiction of any SEA (as defined in this notice) other than the Bureau of Indian Education.

(d) Educational Service Agencies. The term includes educational service agencies and consortia of those agencies.

(e) State Educational Agency. The term includes the SEA in a State in which the SEA is the sole educational agency for all public schools.

*Logic model* (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.*, the active “ingredients” that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

*Military- or veteran-connected student* means one or more of the following:

(a) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a member of the uniformed services (as defined by 37 U.S.C. 101), in the Army, Navy, Air Force, Marine Corps, Coast Guard, Space Force, National Guard, Reserves, National Oceanic and Atmospheric Administration, or Public Health Service or is a veteran of the uniformed services with an honorable discharge (as defined by 38 U.S.C. 3311).

(b) A student who is a member of the uniformed services, a veteran of the uniformed services, or the spouse of a service member or veteran.

(c) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a veteran of the uniformed services (as defined by 37 U.S.C. 101).

*Minority-serving institution* means an institution that is eligible to receive assistance under sections 316 through 320 of part A of title III, under part B of title III, or under title V of the HEA.

*Moderate evidence* means that there is evidence of effectiveness of a key project component in improving a relevant outcome for a sample that overlaps with the populations or settings proposed to receive that

component, based on a relevant finding from one of the following:

(i) A practice guide prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “strong evidence base” or “moderate evidence base” for the corresponding practice guide recommendation;

(ii) An intervention report prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “positive effect” or “potentially positive effect” on a relevant outcome based on a “medium to large” extent of evidence, with no reporting of a “negative effect” or “potentially negative effect” on a relevant outcome; or

(iii) A single experimental study (as defined in this notice) or quasi-experimental design study (as defined in this notice) reviewed and reported by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks, or otherwise assessed by the Department using version 4.1 of the WWC Handbook, as appropriate, and that—

(A) Meets WWC standards with or without reservations;

(B) Includes at least one statistically significant and positive (*i.e.*, favorable) effect on a relevant outcome;

(C) Includes no overriding statistically significant and negative effects on relevant outcomes reported in the study or in a corresponding WWC intervention report prepared under version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks; and

(D) Is based on a sample from more than one site (*e.g.*, State, county, city, school district, or postsecondary campus) and includes at least 350 students or other individuals across sites. Multiple studies of the same project component that each meet requirements in paragraphs (iii)(A), (B), and (C) of this definition may together satisfy this requirement.

*National level* describes the level of scope or effectiveness of a process, product, strategy, or practice that is able to be effective in a wide variety of communities, including rural and urban areas, as well as with different groups (*e.g.*, economically disadvantaged, racial and ethnic groups, migrant populations, individuals with disabilities, English learners, and individuals of each gender).

*Nonprofit*, as applied to an agency, organization, or institution, means that it is owned and operated by one or more corporations or associations whose net earnings do not benefit, and cannot lawfully benefit, any private shareholder or entity.

*Performance measure* means any quantitative indicator, statistic, or

metric used to gauge program or project performance.

*Performance target* means a level of performance that an applicant would seek to meet during the course of a project or as a result of a project.

*Project component* means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (*e.g.*, training teachers on instructional practices for English learners and follow-on coaching for these teachers).

*Quasi-experimental design study* means a study using a design that attempts to approximate an experimental study by identifying a comparison group that is similar to the treatment group in important respects. This type of study, depending on design and implementation (*e.g.*, establishment of baseline equivalence of the groups being compared), can meet WWC standards with reservations, but cannot meet WWC standards without reservations, as described in the WWC Handbooks.

*Regional level* describes the level of scope or effectiveness of a process, product, strategy, or practice that is able to serve a variety of communities within a State or multiple States, including rural and urban areas, as well as with different groups (*e.g.*, economically disadvantaged, racial and ethnic groups, migrant populations, individuals with disabilities, English learners, and individuals of each gender). For an LEA-based project, to be considered a regional-level project, a process, product, strategy, or practice must serve students in more than one LEA, unless the process, product, strategy, or practice is implemented in a State in which the SEA is the sole educational agency for all schools.

*Relevant outcome* means the student outcome(s) or other outcome(s) the key project component is designed to improve, consistent with the specific goals of the program.

*State educational agency* (SEA) means the agency primarily responsible for the State supervision of public elementary schools and secondary schools.

*Strong evidence* means that there is evidence of the effectiveness of a key project component in improving a relevant outcome for a sample that overlaps with the populations and settings proposed to receive that component, based on a relevant finding from one of the following:

(i) A practice guide prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a

“strong evidence base” for the corresponding practice guide recommendation;

(ii) An intervention report prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “positive effect” on a relevant outcome based on a “medium to large” extent of evidence, with no reporting of a “negative effect” or “potentially negative effect” on a relevant outcome; or

(iii) A single experimental study reviewed and reported by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks, or otherwise assessed by the Department using version 4.1 of the WWC Handbooks, as appropriate, and that—

(A) Meets WWC standards without reservations;

(B) Includes at least one statistically significant and positive (*i.e.*, favorable) effect on a relevant outcome;

(C) Includes no overriding statistically significant and negative effects on relevant outcomes reported in the study or in a corresponding WWC intervention report prepared under version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks; and

(D) Is based on a sample from more than one site (*e.g.*, State, county, city, school district, or postsecondary campus) and includes at least 350 students or other individuals across sites. Multiple studies of the same project component that each meet requirements in paragraphs (iii)(A), (B), and (C) of this definition may together satisfy the requirement in this paragraph (iii)(D).

*Tribal College or University* has the meaning ascribed it in section 316(b)(3) of the HEA.

*Underserved student* means a student (which may include children in early learning environments, students in K–12 programs, and students in postsecondary education or career and technical education, as appropriate) in one or more of the following subgroups:

(a) A student who is living in poverty or is served by schools with high concentrations of students living in poverty.

(b) A student of color.

(c) A student who is a member of a federally recognized Indian Tribe.

(d) An English learner.

(e) A child or student with a disability.

(f) A disconnected youth.

(g) A technologically unconnected youth.

(h) A migrant student.

(i) A student experiencing homelessness or housing insecurity.

(j) A lesbian, gay, bisexual, transgender, queer or questioning, or intersex (LGBTQI+) student.

(k) A student who is in foster care.

(l) A student without documentation of immigration status.

(m) A pregnant, parenting, or caregiving student.

(n) A student impacted by the justice system, including a formerly incarcerated student.

(o) A student who is the first in their family to attend postsecondary education.

(p) A student performing significantly below grade level.

(q) A military- or veteran-connected student.

*What Works Clearinghouse Handbooks (WWC Handbooks)* means the standards and procedures set forth in the WWC Standards Handbook, Versions 4.0 or 4.1, and WWC Procedures Handbook, Versions 4.0 or 4.1, or in the WWC Procedures and Standards Handbook, Version 3.0 or Version 2.1 (all incorporated by reference, see § 77.2). Study findings eligible for review under WWC standards can meet WWC standards without reservations, meet WWC standards with reservations, or not meet WWC standards. WWC practice guides and intervention reports include findings from systematic reviews of evidence as described in the WWC Handbooks documentation.

*Note:* The What Works Clearinghouse Procedures and Standards Handbook (Version 4.1), as well as the more recent What Works Clearinghouse Handbooks released in August 2022 (Version 5.0), are available at <https://ies.ed.gov/ncee/wwc/Handbooks>.

*Program Authority:* 20 U.S.C. 7261.

*Note:* Projects will be awarded and must be operated in a manner consistent with the nondiscrimination requirements contained in Federal civil rights laws.

*Applicable Regulations:* (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) The Supplemental Priorities.

*Note:* The regulations in 34 CFR part 86 apply to institutions of higher education (IHEs) only.

## II. Award Information

*Type of Award:* Discretionary grants.  
*Estimated Available Funds:* \$273,000,000.

These estimated available funds are the total available for new awards for all three types of grants under the EIR program (Early-phase, Mid-phase, and Expansion grants).

Contingent upon the availability of funds and the quality of applications, we may make additional awards in subsequent years from the list of unfunded applications.

*Estimated Average Size of Awards:* Up to \$8,000,000.

*Maximum Award:* We will not make an award exceeding \$8,000,000 for a project period of 60 months. The Department intends to fund one or more projects under each of the EIR competitions, including Expansion (84.411A), Mid-phase (84.411B), and Early-phase (84.411C). Entities may submit applications for different projects for more than one competition (Early-phase, Mid-phase, and Expansion). The maximum new award amount a grantee may receive under these three competitions, taken together, is \$15,000,000. If an entity is within funding range for multiple applications, the Department will award the highest scoring applications up to \$15,000,000.

*Estimated Number of Awards:* 8–15.

*Note:* The Department is not bound by any estimates in this notice.

*Project Period:* Up to 60 months.

*Note:* Under section 4611(c) of the ESEA, the Department must use at least 25 percent of EIR funds for a fiscal year to make awards to applicants serving rural areas, contingent on receipt of a sufficient number of applications of sufficient quality. For purposes of this competition, we will consider an applicant as rural if the applicant meets the qualifications for rural applicants as described in the *Eligible Applicants* section and the applicant certifies that it meets those qualifications through the application.

In implementing this statutory provision and program requirement, the Department may fund high-quality applications from rural applicants out of rank order in the Mid-phase competition.

In addition, from the estimated available funds for this competition, the Department intends to award an estimated \$87 million in funds for STEM projects and \$87 million in funds for social and emotional learning projects, contingent on receipt of a

sufficient number of applications of sufficient quality.

### III. Eligibility Information

#### 1. Eligible Applicants:

- (a) An LEA;
- (b) An SEA;
- (c) The Bureau of Indian Education (BIE);
- (d) A consortium of SEAs or LEAs;
- (e) A nonprofit organization; and
- (f) An LEA, an SEA, the BIE, or a consortium described in clause (d), in partnership with—
  - (1) A nonprofit (as defined in this notice) organization;
  - (2) A business;
  - (3) An educational service agency; or
  - (4) An IHE.

To qualify as a rural applicant under the EIR program, an applicant must meet both of the following requirements:

- (a) The applicant is—
  - (1) An LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;
  - (2) A consortium of such LEAs;
  - (3) An educational service agency or a nonprofit organization in partnership with such an LEA; or
  - (4) A grantee described in clause (1) or (2) in partnership with an SEA; and
- (b) A majority of the schools to be served by the program are designated with a locale code of 32, 33, 41, 42, or 43, or a combination of such codes, as determined by the Secretary.

Applicants are encouraged to retrieve locale codes from the National Center for Education Statistics School District search tool (<https://nces.ed.gov/ccd/districtsearch/>), where districts can be looked up individually to retrieve locale codes, and the Public School search tool (<https://nces.ed.gov/ccd/schoolsearch/>), where individual schools can be looked up to retrieve locale codes. More information on rural applicant eligibility will be in the application package for this competition.

*Note:* If you are a nonprofit organization, under 34 CFR 75.51, you may demonstrate your nonprofit status by providing: (1) proof that the Internal Revenue Service currently recognizes the applicant as an organization to which contributions are tax deductible under section 501(c)(3) of the Internal Revenue Code; (2) a statement from a State taxing body or the State attorney general certifying that the organization is a nonprofit organization operating within the State and that no part of its net earnings may lawfully benefit any private shareholder or individual; (3) a certified copy of the applicant's certificate of incorporation or similar document if it clearly establishes the

nonprofit status of the applicant; or (4) any item described above if that item applies to a State or national parent organization, together with a statement by the State or parent organization that the applicant is a local nonprofit affiliate.

In addition, with respect to IHEs and their affiliates, the following may apply for a grant under this competition: (1) As noted above, any IHE that is a partner in an application submitted by an LEA, SEA, BIE, consortium of SEAs or LEAs, or a nonprofit organization; (2) A private IHE that is a nonprofit organization; (3) A nonprofit organization, such as a development foundation, that is affiliated with a public IHE; and (4) A public IHE with 501(c)(3) status. A public IHE without 501(c)(3) status (even if that entity is tax exempt under Section 115 of the Internal Revenue Code or any other State or Federal provision), or that could not provide any other documentation of nonprofit status described above, however, would not qualify as a nonprofit organization, and therefore would not be eligible to apply for and receive an EIR grant.

2. a. *Cost Sharing or Matching:* Under section 4611(d) of the ESEA, each grant recipient must provide, from Federal, State, local, or private sources, an amount equal to 10 percent of funds provided under the grant, which may be provided in cash or through in-kind contributions, to carry out activities supported by the grant. Grantees must include a budget showing their matching contributions to the budget amount of EIR grant funds and must provide evidence of their matching contributions for the first year of the grant in their grant applications.

Section 4611(d) of the ESEA authorizes the Secretary to waive the matching requirement on a case-by-case basis, upon a showing of exceptional circumstances, such as:

- (i) The difficulty of raising matching funds for a program to serve a rural area;
- (ii) The difficulty of raising matching funds in areas with a concentration of LEAs or schools with a high percentage of students aged 5 through 17—

(A) Who are in poverty, as counted in the most recent census data approved by the Secretary;

(B) Who are eligible for a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 *et seq.*);

(C) Whose families receive assistance under the State program funded under part A of title IV of the Social Security Act (42 U.S.C. 601 *et seq.*); or

(D) Who are eligible to receive medical assistance under the Medicaid program; and

(iii) The difficulty of raising funds on Tribal land.

An applicant that wishes to apply for a waiver must include a request in its application, describing the exceptional circumstances that make it difficult for the applicant to meet the matching requirement. Further information about applying for waivers can be found in the application package for this competition.

b. *Indirect Cost Rate Information:* This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see [www2.ed.gov/about/offices/list/ocfo/intro.html](http://www2.ed.gov/about/offices/list/ocfo/intro.html).

c. *Administrative Cost Limitation:* This program does not include any program-specific limitation on administrative expenses. All administrative expenses must be reasonable and necessary and conform to Cost Principles described in 2 CFR part 200 subpart E of the Uniform Guidance.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application.

4. *Other:* a. *Funding Categories:* An applicant will be considered for an award only for the type of EIR grant for which it applies (*i.e.*, Mid-phase: Absolute Priority 2, Mid-phase: Absolute Priority 3, or Mid-phase: Absolute Priority 4). An applicant may not submit an application for the same proposed project under more than one type of grant (*e.g.*, both an Early-phase grant and Mid-phase grant).

*Note:* Each application will be reviewed under the competition in which it was submitted in the *Grants.gov* system, and only applications that are successfully submitted by the established deadline will be peer reviewed. Applicants should be careful that they download the intended EIR application package and that they submit their applications under the intended EIR competition.

b. *Evaluation:* The grantee must conduct an independent evaluation of the effectiveness of its project.

c. *High-need students:* The grantee must serve high-need students.

### IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs,

published in the **Federal Register** on December 7, 2022 (87 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>, which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on December 27, 2021.

## 2. Submission of Proprietary

**Information:** Given the types of projects that may be proposed in applications for Mid-phase grants, your application may include business information that you consider proprietary. In 34 CFR 5.11 we define “business information” and describe the process we use in determining whether any of that information is proprietary and, thus, protected from disclosure under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended).

Because we plan to make successful applications available to the public, you may wish to request confidentiality of business information.

Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under “Other Attachments Form,” please list the page number or numbers on which we can find this information. For additional information please see 34 CFR 5.11(c).

3. **Intergovernmental Review:** This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

4. **Funding Restrictions:** We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. **Recommended Page Limit:** The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative for a Mid-phase grant to no more than 30 pages and (2) use the following standards:

- A “page” is 8.5” × 11”, on one side only, with 1” margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations,

references, and captions, as well as all text in charts, tables, figures, and graphs.

- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).

- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; one-page abstract; evidence form; or appendices (e.g., nonprofit documentation, resumes, letters of support, demonstration of match, matching waiver request, list of proprietary information, eligibility checklist, logic model, indirect cost rate agreement). However, the recommended page limit does apply to the entire application narrative.

6. **Notice of Intent to Apply:** The Department will be able to review grant applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify us of their intent to submit an application. Applicants may access this form using the link available on the Notice of Intent to Apply section of the competition website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>. Applicants that do not submit a notice of intent to apply may still apply for funding; applicants that do submit a notice of intent to apply are not bound to apply or bound by the information provided.

## V. Application Review Information

1. **Selection Criteria:** The selection criteria for the Mid-phase competition are from 34 CFR 75.210. The points assigned to each criterion are indicated in the parentheses next to the criterion. Together with the competitive preference priority, an applicant may earn up to a total of 105 points based on the selection criteria for the application.

### A. Significance (up to 15 points).

The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

### B. Strategy to Scale (up to 40 points).

The Secretary considers the applicant’s strategy to scale the proposed project. In determining the

applicant’s capacity to scale the proposed project, the Secretary considers the following factors:

(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application. (10 points)

(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks. (5 points)

(3) The applicant’s capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in this notice) working directly, or through partners, during the grant period. (10 points)

(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication. (10 points)

(5) The likely utility of the products (such as information, materials, processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings. (5 points)

### C. Quality of the Project Design (up to 15 points).

The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework. (5 points)

(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. (5 points)

(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs. (5 points)

### D. Quality of the Project Evaluation (up to 30 points).

The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project’s effectiveness that would meet the What Works Clearinghouse standards without

reservations as described in the What Works Clearinghouse Handbook (as defined in this notice). (15 points)

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings. (5 points)

(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation. (5 points)

(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes. (5 points)

*Note:* Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: <https://ies.ed.gov/ncee/wwc/Handbooks>; (2) “Technical Assistance Materials for Conducting Rigorous Impact Evaluations”: <http://ies.ed.gov/ncee/projects/evaluationTA.asp>; and (3) IES/NCEE Technical Methods papers: [http://ies.ed.gov/ncee/tech\\_methods/](http://ies.ed.gov/ncee/tech_methods/). In addition, applicants may view an optional webinar recording that was hosted by the Institute of Education Sciences. The webinar focused on more rigorous evaluation designs, discussing strategies for designing and executing experimental studies that meet WWC evidence standards without reservations. This webinar is available at: <https://ies.ed.gov/ncee/wwc/Multimedia/18>.

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant’s use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

Before making awards, we will screen applications submitted in accordance with the requirements in this notice to determine whether applications have met eligibility and other requirements. This screening process may occur at various stages of the process; applicants

that are determined to be ineligible will not receive a grant, regardless of peer reviewer scores or comments.

Peer reviewers will read, prepare a written evaluation of, and score the assigned applications, using the selection criteria provided in this notice.

3. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions and, under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

4. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently \$250,000), under 2 CFR 200.206(a)(2), we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds \$10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed \$10,000,000.

5. *In General:* In accordance with the Office of Management and Budget’s guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with:

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

## VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

2. *Administrative and National Policy Requirements:* We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and

selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

*Note:* The evaluation report is a specific deliverable under a Mid-phase grant that grantees must make available to the public. Additionally, EIR grantees are encouraged to submit final studies resulting from research supported in whole or in part by EIR to the Educational Resources Information Center (<http://eric.ed.gov>).

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to [www.ed.gov/fund/grant/apply/appforms/appforms.html](http://www.ed.gov/fund/grant/apply/appforms/appforms.html).

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case, the Secretary establishes a data collection period.

5. *Performance Measures:* For the purpose of Department reporting under 34 CFR 75.110, the Department has established a set of performance measures (as defined in this notice) for the Mid-phase grants.

*Annual performance measures:* (1) The percentage of grantees that reach their annual target number of students as specified in the application; (2) the percentage of grantees that reach their annual target number of high-need students as specified in the application; (3) the percentage of grantees with ongoing well-designed and independent evaluations that will provide evidence of their effectiveness at improving student outcomes in multiple contexts; (4) the percentage of grantees that implement an evaluation that provides information about the key practices and the approach of the project so as to facilitate replication; (5) the percentage of grantees that implement an evaluation that provides information on

the cost-effectiveness of the key practices to identify potential obstacles and success factors to scaling; and (6) the cost per student served by the grant.

*Cumulative performance measures:* (1) The percentage of grantees that reach the targeted number of students specified in the application; (2) the percentage of grantees that reach the targeted number of high-need students specified in the application; (3) the percentage of grantees that complete a well-designed, well-implemented, and independent evaluation that provides evidence of their effectiveness at improving student outcomes at scale; (4) the percentage of grantees that complete a well-designed, well-implemented, and independent evaluation that provides information about the key elements and the approach of the project so as to facilitate replication or testing in other settings; (5) the percentage of grantees with a completed evaluation that provides information on the cost-effectiveness of the key practices to identify potential obstacles and success factors to scaling; and (6) the cost per student served by the grant.

*Project-Specific Performance Measures:* Applicants must propose project-specific performance measures and performance targets (both as defined in this notice) consistent with the objectives of the proposed project. Applications must provide the following information as directed under 34 CFR 75.110(b) and (c):

(1) Performance measures. How each proposed performance measure would accurately measure the performance of the project and how the proposed performance measure would be consistent with the performance measures established for the program funding the competition.

(2) Baseline (as defined in this notice) data. (i) Why each proposed baseline is valid; or (ii) if the applicant has determined that there are no established baseline data for a particular performance measure, an explanation of why there is no established baseline and of how and when, during the project period, the applicant would establish a valid baseline for the performance measure.

(3) Performance targets. Why each proposed performance target is ambitious yet achievable compared to the baseline for the performance measure and when, during the project period, the applicant would meet the performance target(s).

(4) Data collection and reporting. (i) The data collection and reporting methods the applicant would use and why those methods are likely to yield reliable, valid, and meaningful

performance data; and (ii) the applicant's capacity to collect and report reliable, valid, and meaningful performance data, as evidenced by high-quality data collection, analysis, and reporting in other projects or research.

All grantees must submit an annual performance report with information that is responsive to these performance measures.

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things, whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

## VII. Other Information

*Accessible Format:* On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

*Electronic Access to This Document:* The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit

your search to documents published by the Department.

**James Lane,**

*Principal Deputy Assistant Secretary, Delegated the Authority to Perform the Functions and Duties of the Assistant Secretary, Office of Elementary and Secondary Education.*

[FR Doc. 2023-11001 Filed 5-22-23; 8:45 am]

**BILLING CODE 4000-01-P**

## DEPARTMENT OF EDUCATION

[Docket No.: ED-2023-SCC-0091]

### Agency Information Collection Activities; Comment Request; Statewide Longitudinal Data System (SLDS) Survey 2023-2025

**AGENCY:** National Center for Education Statistics (NCES), Department of Education (ED).

**ACTION:** Notice.

**SUMMARY:** In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a revision of a currently approved information collection request (ICR).

**DATES:** Interested persons are invited to submit comments on or before July 24, 2023.

**ADDRESSES:** To access and review all the documents related to the information collection listed in this notice, please use <http://www.regulations.gov> by searching the Docket ID number ED-2023-SCC-0091. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the [regulations.gov](http://www.regulations.gov) site is not available to the public for any reason, the Department will temporarily accept comments at [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov). Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. Please note that comments submitted after the comment period will not be accepted. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Manager of the Strategic Collections and Clearance Governance and Strategy Division, U.S. Department of Education, 400 Maryland Ave. SW, LBJ, Room 4C210, Washington, DC 20202-8240.

**FOR FURTHER INFORMATION CONTACT:** For specific questions related to collection activities, please contact Carrie Clarady, 202-245-6347.

**SUPPLEMENTARY INFORMATION:** The Department, in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Department is soliciting comments on the proposed information collection request (ICR) that is described below. The Department is especially interested in public comment addressing the following issues: (1) is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

*Title of Collection:* Statewide Longitudinal Data System (SLDS) Survey 2023-2025.

*OMB Control Number:* 1850-0933.

*Type of Review:* A revision of a currently approved ICR.

*Respondents/Affected Public:* State, local, and Tribal governments.

*Total Estimated Number of Annual Responses:* 75.

*Total Estimated Number of Annual Burden Hours:* 94.

*Abstract:* The National Center for Education Statistics (NCES), of the Institute of Education Sciences (IES), within the U.S. Department of Education, is requesting clearance to continue the Statewide Longitudinal Data System (SLDS) Survey collection, which is intended to provide insight on State and U.S. territory SLDS capacity for automated linking of K-12, teacher, postsecondary, workforce, career and technical education (CTE), adult education, and early childhood data. Historically, SLDS has collected information annually from State Education Agencies (SEAs) and has helped inform NCES ongoing evaluation and targeted technical assistance efforts to enhance the quality of the SLDS Program's support to States regarding systems development, enhancement, and use. The request to conduct all

activities related to SLDS 2021-2023, including materials and procedures, was approved by OMB in October 2021 (OMB#1859-0933 v.10).

This new request is to conduct all activities related to SLDS 2023-25, continuing usage of the Qualtrics information collection tool initiated in the 2023 collection. The appendices include updated communications, webinars, and Qualtrics instrument screenshots related to the SLDS 2023-25 collection. While minor adjustments were made to questions and language, the primary change proposed in this package is a shift from an annual to a biennial collection. Nationwide, SLDS system capacity changes frequently (ex. Infrastructure enhancements, evolving P20W agency collaborations, State legislation impacts, etc.), but analysis demonstrates that the COVID-19 pandemic stagnated the work to some extent. The 2019-20 Statistics in Brief and accompanying data file (anticipated May 2023 publication release) indicate very little change in results over the two-year period, indicating that shifting to an every-other-year collection would allow for more timely releases of data, with no adverse effect on the integrity of the information.

Dated: May 18, 2023.

**Stephanie Valentine,**

*PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.*

[FR Doc. 2023-10943 Filed 5-22-23; 8:45 am]

**BILLING CODE 4000-01-P**

## DEPARTMENT OF EDUCATION

### Applications for New Awards; Education Innovation and Research (EIR) Program—Expansion Grants

**AGENCY:** Office of Elementary and Secondary Education, Department of Education.

**ACTION:** Notice.

**SUMMARY:** The Department of Education (Department) is issuing a notice inviting applications for fiscal year (FY) 2023 for the EIR program—Expansion Grants, Assistance Listing Number 84.411A (Expansion Grants). This notice relates to the approved information collection under OMB control number 1894-0006.

**DATES:**

*Applications Available:* May 25, 2023.  
*Deadline for Notice of Intent to Apply:* June 22, 2023.

*Deadline for Transmittal of Applications:* July 12, 2023.



*Deadline for Intergovernmental Review:* September 11, 2023.

*Pre-Application Information:* The Department will post additional competition information for prospective applicants on the EIR program website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>.

**ADDRESSES:** For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (7 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>. Please note that these Common Instructions supersede the version published on December 27, 2021.

**FOR FURTHER INFORMATION CONTACT:** Yvonne Crockett, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202–5900. Telephone: 202–987–1753. Email: [eir@ed.gov](mailto:eir@ed.gov).

If you are deaf, hard of hearing, or have a speech disability and wish to access telecommunications relay services, please dial 7–1–1.

#### **SUPPLEMENTARY INFORMATION:**

#### **Full Text of Announcement**

#### **I. Funding Opportunity Description**

*Purpose of Program:* The EIR program, established under section 4611 of the Elementary and Secondary Education Act, as amended (ESEA), provides funding to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based (as defined in this notice), field-initiated innovations to improve student achievement and attainment for high-need students and to rigorously evaluate such innovations. The EIR program is designed to generate and validate solutions to persistent education challenges and to support the expansion of those solutions to serve substantially higher numbers of students.

The central design element of the EIR program is its multitier structure that links the amount of funding an applicant may receive to the quality of the evidence supporting the efficacy of the proposed project. A goal of the program is for projects that build this evidence to advance through EIR’s grant tiers: “Early-phase,” “Mid-phase,” and “Expansion.”

“Early-phase,” “Mid-phase,” and “Expansion” grants differ in terms of the evidence of effectiveness required to be considered for funding, the expectations regarding the kind of evidence and information funded projects should produce, the scale of funded projects, and, consequently, the amount of funding available to support each type of project.

Expansion grants are supported by strong evidence (as defined in this notice) for at least one population and setting, and grantees are encouraged to implement at the national level (as defined in this notice). Expansion grants provide funding for the implementation and rigorous evaluation of a program that has been found to produce sizable, significant impacts under a Mid-phase grant or other effort meeting similar criteria, for the purposes of (a) determining whether such impacts can be successfully reproduced and sustained over time, and (b) identifying the conditions in which the program is most effective.

This notice invites applications for Expansion grants only. The notices inviting applications for Early-phase and Mid-phase grants are published elsewhere in this issue of the **Federal Register**.

#### *Background*

While this notice is for the Expansion tier only, the premise of the EIR program is that new and innovative educational programs and practices can help to overcome the persistent and significant challenges to student success, particularly for underserved and high-need students. Raise the Bar: Lead the World is the Department’s call to action to transform pre-kindergarten (pre-K) through grade 12 education and unite around what truly works by promoting academic excellence, boldly improving learning conditions, and preparing of our Nation’s students for global competitiveness. Consistent with that call to action, the priorities used in this competition advance Raise the Bar’s goals to promote academic excellence and boldly improve learning conditions. In FY 2023, the Department is particularly interested in projects that propose services and activities that help to not only recover from the COVID–19 pandemic but reimagine schools and transform our education system. The priorities used in this competition are designed to create conditions under which students have equitable access to high-quality learning opportunities and experiences.<sup>1</sup>

<sup>1</sup> U.S. Secretary of Education Miguel Cardona laid out his vision for the direction the agency will

*Note:* The EIR program statute refers to “high-need students” but does not define the term, which allows applicants to define it for purposes of the applicant’s proposed project, population, and setting. Note that, for the EIR program, addressing the needs of underserved students (as defined in this notice) is one way to address the statutory requirement for serving “high-need students.”

The EIR program is rooted in innovation; the program is not intended to provide support for practices that are already commonly implemented by educators, unless significant adaptations of such practices warrant testing to determine if they can accelerate achievement, or increase the likelihood that the practices can be widely, efficiently, and effectively implemented in new populations and settings. If evaluation demonstrates that innovations are supported by strong evidence, EIR seeks applicants who can replicate and test these innovations in new populations and settings.

As an EIR project is implemented, grantees are encouraged to learn more about how the practices improve student achievement and attainment as well as to develop increasingly rigorous evidence of effectiveness and new strategies to efficiently and cost-effectively scale to new school districts, regions, and States. We encourage applicants to develop a logic model (as defined in this notice), theory of action, or another conceptual framework that includes the goals, objectives, outcomes, and key project components (as defined in this notice) of the project that can support systems of continuous improvement.

All EIR applicants and grantees should also consider how they need to develop their organizational capacity, project financing, or business plans to sustain their projects and continue implementation and adaptation after Federal funding ends. The Department intends to provide grantees with technical assistance to support dissemination, scaling, and sustainability efforts.

Expansion projects are expected to scale practices that have prior evidence of effectiveness to improve outcomes for high-need and underserved students. They are also expected to generate

follow in 2023 to promote academic excellence, improve learning conditions, and prepare our students for a world where global engagement is critical to our Nation’s standing. In his address, Secretary Cardona remarked that “Raise the Bar: Lead the World” is not a list of new priorities, but a call to strengthen our will to transform education for the better, building on approaches that we know work in education. More information is available at <https://www.ed.gov/raisethebar>.



important information about an intervention's effectiveness, such as for whom and in which contexts a practice is most effective, including cost considerations such as economies of scale. Expansion projects are uniquely positioned to help answer critical questions about the process of scaling a practice to the national level across geographies as well as locale types. Expansion grantees are encouraged to consider how the cost structure of a practice can change as the intervention scales. Additionally, grantees may want to consider how their project will balance implementation fidelity and flexibility for scaling.

Expansion applicants are encouraged to design an evaluation that has the potential to meet strong evidence. Expansion grantees should measure the cost—effectiveness of their practices using administrative or other readily available data. These types of efforts are critical to sustaining and scaling EIR-funded effective practices after the EIR grant period ends (assuming that the practice has positive effects on important student outcomes). To support adoption or replication by other entities, the evaluation of an Expansion project should identify and codify the core elements of the EIR-supported practice that the project implements, as well as examine the effectiveness of the project for any new populations or settings that are included in the project. The Department intends to provide grantees (including the independent evaluators they contract with as part of their project) with evaluation technical assistance. This could include grantees and their independent evaluators providing to the Department or its contractor updated comprehensive evaluation plans in a format as requested by the technical assistance provider and using such tools as the Department may request. Grantees will be encouraged to update this evaluation plan at least annually to reflect any changes to the evaluation. Updates must be consistent with the scope and objectives of the approved application.

The FY 2023 Expansion grant competition includes two absolute priorities and one competitive preference priority. Applicants must address both Absolute priorities. Applicants have the option of addressing the competitive preference priority.

**Absolute Priority 1—Strong Evidence** establishes the evidence requirement for this tier of grants. All Expansion applicants must submit prior evidence of effectiveness that meets the strong evidence standard.

**Absolute Priority 2—Field-Initiated Innovations—General** gives applicants the option to propose projects that are field-initiated innovations to improve student achievement and attainment.

The competitive preference priority is intended to encourage applicants to propose projects that involve (as applicants or partners) entities underrepresented in the program's portfolio of grants. The Department is eager to increase the volume of applicants and partners from entities including community colleges (as defined in this notice), historically Black colleges and universities (as defined in this notice), Tribal Colleges and Universities (as defined in this notice), and minority-serving institutions (as defined in this notice).

The Department seeks projects that develop and evaluate evidence-based, field-initiated innovations to address inequities in our country's education system. The proposed innovations should be designed to better enable students to access educational opportunities to succeed in school and reach their full potential. The Department expects applicants, by scaling innovative ideas, will raise the bar to reimagine schools.

Through these priorities, the Department intends to advance innovation, build evidence, and address the learning and achievement of underserved and high-need students in pre-K through grade 12.

**Priorities:** This notice includes two absolute priorities and one competitive preference priority. In accordance with 34 CFR 75.105(b)(2)(ii), Absolute Priority 1 is from the list of program priorities established in 34 CFR 75.226(d)(2). In accordance with 34 CFR 75.105(b)(2)(iv), Absolute Priority 2 is from the program statute in section 4611(a)(1)(A) of the ESEA. The competitive preference priority is from the Supplemental Priorities and Definitions for Discretionary Grant Programs, published in the **Federal Register** on December 10, 2021 (86 FR 70612) (Supplemental Priorities).

**Absolute Priorities:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these priorities are absolute priorities. Under 34 CFR 75.105(c)(3), we consider only applications that meet both Absolute Priority 1 and Absolute Priority 2.

These priorities are:

**Absolute Priority 1—Strong Evidence**

Projects supported by evidence that meets the conditions in the definition of strong evidence.

*Note:* An applicant must identify up to four studies to be reviewed against the What Works Clearinghouse (WWC) Handbooks (as defined in this notice) for the purposes of meeting the definition of strong evidence. The studies may have been conducted by the applicant or by a third party. An applicant must clearly identify the citation for each study in the Evidence form. An applicant must ensure that all cited studies are available to the Department from publicly available sources and provide links or other guidance indicating where each is available. The Department may not review a study that an applicant fails to clearly identify for review.

In addition to including up to four study citations, an applicant must provide in the Evidence form the following information: (1) the positive student outcomes the applicant intends to replicate under its Expansion grant and how these outcomes correspond to the positive student outcomes in the cited studies; (2) the characteristics of the population to be served under its Expansion grant and how these characteristics correspond to the characteristics of the students in the cited studies; (3) the characteristics of the setting to be served under its Expansion grant and how these characteristics correspond to the settings in the cited studies; and (4) the practice(s) the applicant plans to implement under its Expansion grant and how the practice(s) correspond with the practice(s) in the cited studies.

If the Department determines that an applicant has provided insufficient information, the applicant will not have an opportunity to provide additional information. However, if the WWC team reviewing evidence determines that a study does not provide enough information on key aspects of the study design, such as sample attrition or equivalence of intervention and comparison groups, the WWC may submit a query to the study author(s) to gather information for use in determining a study rating. Authors would be asked to respond to queries within 10 business days. Should the author query remain incomplete within 14 days of the initial contact with the study author(s), the study may be deemed ineligible under the grant competition. After the grant competition closes, the WWC will, for purposes of its own curation of studies, continue to include responses to author queries and make updates to study reviews as necessary. However, no additional information will be considered after the competition closes and the initial

timeline established for response to an author query passes.

*Absolute Priority 2—Field-Initiated Innovations—General*

Projects designed to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students.

**Competitive Preference Priority:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is a competitive preference priority. Under 34 CFR 75.105(c)(2)(i), we award up to an additional 5 points to an application, depending on how well the application addresses the competitive preference priority.

This priority is:

*Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 5 points).*

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in this notice).

(b) Historically Black colleges and universities (as defined in this notice).

(c) Tribal Colleges and Universities (as defined in this notice).

(d) Minority-serving institutions (as defined in this notice).

**Definitions:** The following definitions apply to this program. The definitions of “baseline,” “experimental study,” “logic model,” “strong evidence,” “national level,” “nonprofit,” “performance measure,” “performance target,” “project component,” “relevant outcome,” and “What Works

Clearinghouse Handbooks (WWC Handbooks)” are from 34 CFR 77.1. The definitions of “evidence-based,” “local educational agency” and “State educational agency” are from section 8101 of the ESEA. The definitions of “community college,” “children or students with disabilities,”

“disconnected youth,” “early learning,” “English learner,” “historically Black colleges and universities,” “military- or veteran-connected student,” “minority-serving institutions,” “Tribal College or University,” and “underserved student” are from the Supplemental Priorities.

**Baseline** means the starting point from which performance is measured and targets are set.

**Children or students with disabilities** means children with disabilities as defined in section 602(3) of the Individuals with Disabilities Education

Act (IDEA) (20 U.S.C. 1401(3)) and 34 CFR 300.8, or students with disabilities, as defined in the Rehabilitation Act of 1973 (29 U.S.C. 705(37), 705(2)(B)).

**Community college** means “junior or community college” as defined in section 312(f) of the Higher Education Act of 1965, as amended (HEA).

**Disconnected youth** means an individual, between the ages 14 and 24, who may be from a low-income background, experiences homelessness, is in foster care, is involved in the justice system, or is not working or not enrolled in (or at risk of dropping out of) an educational institution.

**Early learning** means any (a) State-licensed or State-regulated program or provider, regardless of setting or funding source, that provides early care and education for children from birth to kindergarten entry, including, but not limited to, any program operated by a child care center or in a family child care home; (b) program funded by the Federal Government or State or local educational agencies (including any IDEA-funded program); (c) Early Head Start and Head Start program; (d) non-relative child care provider who is not otherwise regulated by the State and who regularly cares for two or more unrelated children for a fee in a provider setting; and (e) other program that may deliver early learning and development services in a child’s home, such as the Maternal, Infant, and Early Childhood Home Visiting Program; Early Head Start; and Part C of IDEA.

**English learner** means an individual who is an English learner as defined in section 8101(20) of the ESEA, or an individual who is an English language learner as defined in section 203(7) of the Workforce Innovation and Opportunity Act.

**Evidence-based** means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) strong evidence from at least 1 well-designed and well-implemented experimental study;

(II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

**Experimental study** means a study that is designed to compare outcomes between two groups of individuals (such as students) that are otherwise equivalent except for their assignment to either a treatment group receiving a project component or a control group that does not. Randomized controlled trials, regression discontinuity design studies, and single-case design studies are the specific types of experimental studies that, depending on their design and implementation (e.g., sample attrition in randomized controlled trials and regression discontinuity design studies), can meet What Works Clearinghouse (WWC) standards without reservations as described in the WWC Handbooks (as defined in this notice):

(i) A randomized controlled trial employs random assignment of, for example, students, teachers, classrooms, or schools to receive the project component being evaluated (the treatment group) or not to receive the project component (the control group).

(ii) A regression discontinuity design study assigns the project component being evaluated using a measured variable (e.g., assigning students reading below a cutoff score to tutoring or developmental education classes) and controls for that variable in the analysis of outcomes.

(iii) A single-case design study uses observations of a single case (e.g., a student eligible for a behavioral intervention) over time in the absence and presence of a controlled treatment manipulation to determine whether the outcome is systematically related to the treatment.

**Historically Black colleges and universities** means colleges and universities that meet the criteria set out in 34 CFR 608.2.

**Local educational agency (LEA)** means:

(a) In General. A public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or of or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public elementary schools or secondary schools.

(b) Administrative Control and Direction. The term includes any other public institution or agency having

administrative control and direction of a public elementary school or secondary school.

(c) Bureau of Indian Education Schools. The term includes an elementary school or secondary school funded by the Bureau of Indian Education but only to the extent that including the school makes the school eligible for programs for which specific eligibility is not provided to the school in another provision of law and the school does not have a student population that is smaller than the student population of the LEA receiving assistance under the ESEA with the smallest student population, except that the school shall not be subject to the jurisdiction of any State educational agency (SEA) (as defined in this notice) other than the Bureau of Indian Education.

(d) Educational Service Agencies. The term includes educational service agencies and consortia of those agencies.

(e) State Educational Agency. The term includes the SEA in a State in which the SEA is the sole educational agency for all public schools.

*Logic model* (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.*, the active “ingredients” that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

*Military- or veteran-connected student* means one or more of the following:

(a) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a member of the uniformed services (as defined by 37 U.S.C. 101), in the Army, Navy, Air Force, Marine Corps, Coast Guard, Space Force, National Guard, Reserves, National Oceanic and Atmospheric Administration, or Public Health Service or is a veteran of the uniformed services with an honorable discharge (as defined by 38 U.S.C. 3311).

(b) A student who is a member of the uniformed services, a veteran of the uniformed services, or the spouse of a service member or veteran.

(c) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a

veteran of the uniformed services (as defined by 37 U.S.C. 101).

*Minority-serving institution* means an institution that is eligible to receive assistance under sections 316 through 320 of part A of title III, under part B of title III, or under title V of the HEA.

*National level* describes the level of scope or effectiveness of a process, product, strategy, or practice that can be effective in a wide variety of communities, including rural and urban areas, as well as with different groups (*e.g.*, economically disadvantaged, racial and ethnic groups, migrant populations, individuals with disabilities, English learners, and individuals of each gender).

*Nonprofit*, as applied to an agency, organization, or institution, means that it is owned and operated by one or more corporations or associations whose net earnings do not benefit, and cannot lawfully benefit, any private shareholder or entity.

*Performance measure* means any quantitative indicator, statistic, or metric used to gauge program or project performance.

*Performance target* means a level of performance that an applicant would seek to meet during the course of a project or as a result of a project.

*Project component* means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (*e.g.*, training teachers on instructional practices for English learners and follow-on coaching for these teachers).

*Relevant outcome* means the student outcome(s) or other outcome(s) the key project component is designed to improve, consistent with the specific goals of the program.

*State educational agency (SEA)* means the agency primarily responsible for the State supervision of public elementary schools and secondary schools.

*Strong evidence* means that there is evidence of the effectiveness of a key project component in improving a relevant outcome for a sample that overlaps with the populations and settings proposed to receive that component, based on a relevant finding from one of the following:

(i) A practice guide prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “strong evidence base” for the corresponding practice guide recommendation;

(ii) An intervention report prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting

a “positive effect” on a relevant outcome based on a “medium to large” extent of evidence, with no reporting of a “negative effect” or “potentially negative effect” on a relevant outcome; or

(iii) A single experimental study reviewed and reported by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks, or otherwise assessed by the Department using version 4.1 of the WWC Handbook, as appropriate, and that—

(A) Meets WWC standards without reservations;

(B) Includes at least one statistically significant and positive (*i.e.*, favorable) effect on a relevant outcome;

(C) Includes no overriding statistically significant and negative effects on relevant outcomes reported in the study or in a corresponding WWC intervention report prepared under version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks; and

(D) Is based on a sample from more than one site (*e.g.*, State, county, city, school district, or postsecondary campus) and includes at least 350 students or other individuals across sites. Multiple studies of the same project component that each meet requirements in paragraphs (iii)(A), (B), and (C) of this definition may together satisfy this requirement in this paragraph (iii)(D).

*Tribal College or University* has the meaning ascribed it in section 316(b)(3) of the HEA.

*Underserved student* means a student (which may include children in early learning environments, students in K–12 programs, and students in postsecondary education or career and technical education, as appropriate) in one or more of the following subgroups:

(a) A student who is living in poverty or is served by schools with high concentrations of students living in poverty.

(b) A student of color.

(c) A student who is a member of a federally recognized Indian Tribe.

(d) An English learner.

(e) A child or student with a disability.

(f) A disconnected youth.

(g) A technologically unconnected youth.

(h) A migrant student.

(i) A student experiencing homelessness or housing insecurity.

(j) A lesbian, gay, bisexual, transgender, queer or questioning, or intersex (LGBTQI+) student.

(k) A student who is in foster care.

(l) A student without documentation of immigration status.

(m) A pregnant, parenting, or caregiving student.

(n) A student impacted by the justice system, including a formerly incarcerated student.

(o) A student who is the first in their family to attend postsecondary education.

(p) A student performing significantly below grade level.

(q) A military- or veteran-connected student.

*What Works Clearinghouse Handbooks (WWC Handbooks)* means the standards and procedures set forth in the WWC Standards Handbook, Versions 4.0 or 4.1, and WWC Procedures Handbook, Versions 4.0 or 4.1, or in the WWC Procedures and Standards Handbook, Version 3.0 or Version 2.1 (all incorporated by reference, see § 77.2). Study findings eligible for review under WWC standards can meet WWC standards without reservations, meet WWC standards with reservations, or not meet WWC standards. WWC practice guides and intervention reports include findings from systematic reviews of evidence as described in the WWC Handbooks documentation.

*Note:* The What Works Clearinghouse Procedures and Standards Handbook (Version 4.1), as well as the more recent What Works Clearinghouse Handbooks released in August 2022 (Version 5.0), are available at <https://ies.ed.gov/ncee/wwc/Handbooks>.

*Program Authority:* 20 U.S.C. 7261.

*Note:* Projects will be awarded and must be operated in a manner consistent with the nondiscrimination requirements contained in Federal civil rights laws.

*Applicable Regulations:* (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) The Supplemental Priorities.

*Note:* The regulations in 34 CFR part 86 apply to institutions of higher education (IHEs) only.

## II. Award Information

*Type of Award:* Discretionary grants.

*Estimated Available Funds:* \$273,000,000.

These estimated available funds are the total available for new awards for all

three types of grants under the EIR program (Early-phase, Mid-phase, and Expansion grants).

Contingent upon the availability of funds and the quality of applications, we may make additional awards in subsequent years from the list of unfunded applications.

*Estimated Average Size of Awards:* Up to \$15,000,000.

*Maximum Award:* We will not make an award exceeding \$15,000,000 for a project period of 60 months. The Department intends to fund one or more projects under each of the EIR competitions, including Expansion (84.411A), Mid-phase (84.411B), and Early-phase (84.411C). Entities may submit applications for different projects for more than one competition (Early-phase, Mid-phase, and Expansion). The maximum new award amount a grantee may receive under these three competitions, taken together, is \$15,000,000. If an entity is within funding range for multiple applications, the Department will award the highest scoring applications up to \$15,000,000.

*Estimated Number of Awards:* 4–8.

*Note:* The Department is not bound by any estimates in this notice.

*Project Period:* Up to 60 months.

*Note:* Under section 4611(c) of the ESEA, the Department must use at least 25 percent of EIR funds for a fiscal year to make awards to applicants serving rural areas, contingent on receipt of a sufficient number of applications of sufficient quality. For purposes of this competition, we will consider an applicant as rural if the applicant meets the qualifications for rural applicants as described in the *Eligible Applicants* section and the applicant certifies that it meets those qualifications through the application. In implementing this statutory provision and program requirement, the Department may fund high-quality applications from rural applicants out of rank order in the Expansion competition.

In addition, from the estimated funds for this competition, the Department intends to award an estimated \$87 million in funds for STEM projects and \$87 million in funds for social and emotional learning projects, contingent on receipt of a sufficient number of applications of sufficient quality.

## III. Eligibility Information

### 1. Eligible Applicants:

- (a) An LEA;
- (b) An SEA;
- (c) The Bureau of Indian Education (BIE);
- (d) A consortium of SEAs or LEAs;
- (e) A nonprofit (as defined in this notice) organization; and

(f) An LEA, an SEA, the BIE, or a consortium described in clause (d), in partnership with—

- (1) A nonprofit organization;
- (2) A business;
- (3) An educational service agency; or
- (4) An IHE.

To qualify as a rural applicant under the EIR program, an applicant must meet both of the following requirements:

(a) The applicant is—

- (1) An LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;
- (2) A consortium of such LEAs;
- (3) An educational service agency or a nonprofit organization in partnership with such an LEA; or
- (4) A grantee described in clause (1) or (2) in partnership with an SEA; and
- (b) A majority of the schools to be served by the program are designated with a locale code of 32, 33, 41, 42, or 43, or a combination of such codes, as determined by the Secretary.

Applicants are encouraged to retrieve locale codes from the National Center for Education Statistics School District search tool (<https://nces.ed.gov/ccd/districtsearch/>), where districts can be looked up individually to retrieve locale codes, and the Public School search tool (<https://nces.ed.gov/ccd/schoolsearch/>), where individual schools can be looked up to retrieve locale codes. More information on rural applicant eligibility will be in the application package for this competition.

*Note:* If you are a nonprofit organization, under 34 CFR 75.51, you may demonstrate your nonprofit status by providing: (1) proof that the Internal Revenue Service currently recognizes the applicant as an organization to which contributions are tax deductible under section 501(c)(3) of the Internal Revenue Code; (2) a statement from a State taxing body or the State attorney general certifying that the organization is a nonprofit organization operating within the State and that no part of its net earnings may lawfully benefit any private shareholder or individual; (3) a certified copy of the applicant's certificate of incorporation or similar document if it clearly establishes the nonprofit status of the applicant; or (4) any item described above if that item applies to a State or national parent organization, together with a statement by the State or parent organization that the applicant is a local nonprofit affiliate.

In addition, with respect to IHEs and their affiliates, the following may apply: (1) As noted above, any IHE that is a partner in an application submitted by an LEA, SEA, BIE, consortium of SEAs

or LEAs, or a nonprofit organization; (2) A private IHE that is a nonprofit organization; (3) A nonprofit organization, such as a development foundation, that is affiliated with a public IHE; and (4) A public IHE with 501(c)(3) status. A public IHE without 501(c)(3) status (even if that entity is tax exempt under Section 115 of the Internal Revenue Code or any other State or Federal provision), or that could not provide any other documentation of nonprofit status described above, however, would not qualify as a nonprofit organization, and therefore would not be eligible to apply for and receive an EIR grant.

2. a. *Cost Sharing or Matching:* Under section 4611(d) of the ESEA, each grant recipient must provide, from Federal, State, local, or private sources, an amount equal to 10 percent of funds provided under the grant, which may be provided in cash or through in-kind contributions, to carry out activities supported by the grant. Grantees must include a budget showing their matching contributions to the budget amount of EIR grant funds and must provide evidence of their matching contributions for the first year of the grant in their grant applications.

Section 4611(d) of the ESEA authorizes the Secretary to waive the matching requirement on a case-by-case basis, upon a showing of exceptional circumstances, such as:

- (i) The difficulty of raising matching funds for a program to serve a rural area;
- (ii) The difficulty of raising matching funds in areas with a concentration of LEAs or schools with a high percentage of students aged 5 through 17—

(A) Who are in poverty, as counted in the most recent census data approved by the Secretary;

(B) Who are eligible for a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 *et seq.*);

(C) Whose families receive assistance under the State program funded under part A of title IV of the Social Security Act (42 U.S.C. 601 *et seq.*); or

(D) Who are eligible to receive medical assistance under the Medicaid program; and

- (iii) The difficulty of raising funds on Tribal land.

An applicant that wishes to apply for a waiver must include a request in its application, describing the exceptional circumstances that make it difficult for the applicant to meet the matching requirement. Further information about applying for waivers can be found in the application package for this competition.

b. *Indirect Cost Rate Information:* This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see [www2.ed.gov/about/offices/list/ocfo/intro.html](http://www2.ed.gov/about/offices/list/ocfo/intro.html).

c. *Administrative Cost Limitation:* This program does not include any program-specific limitation on administrative expenses. All administrative expenses must be reasonable and necessary and conform to Cost Principles described in 2 CFR part 200 subpart E of the Uniform Guidance.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application.

4. *Other: a. Funding Categories:* An applicant will be considered for an award only for the type of EIR grant for which it applies. An applicant may not submit an application for the same proposed project under more than one type of grant (e.g., both an Expansion grant and Mid-phase grant).

*Note:* Each application will be reviewed under the competition in which it was submitted in the [Grants.gov](http://Grants.gov) system, and only applications that are successfully submitted by the established deadline will be peer reviewed. Applicants should be careful that they download the intended EIR application package and that they submit their applications under the intended EIR competition.

b. *Evaluation:* The grantee must conduct an independent evaluation of the effectiveness of its project.

c. *High-need students:* The grantee must serve high-need students.

#### IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (87 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>, which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on December 27, 2021.

2. *Submission of Proprietary Information:* Given the types of projects that may be proposed in applications for Expansion grants, your application may

include business information that you consider proprietary. In 34 CFR 5.11 we define “business information” and describe the process we use in determining whether any of that information is proprietary and, thus, protected from disclosure under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended).

Because we plan to make successful applications available to the public, you may wish to request confidentiality of business information.

Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under “Other Attachments Form,” please list the page number or numbers on which we can find this information. For additional information please see 34 CFR 5.11(c).

3. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

4. *Funding Restrictions:* We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative for an Expansion grant to no more than 35 pages and (2) use the following standards:

- A “page” is 8.5” × 11”, on one side only, with 1” margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, references, and captions, as well as all text in charts, tables, figures, and graphs.
- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).
- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; one-page abstract; evidence form; or appendices (e.g., nonprofit documentation, resumes,

letters of support, demonstration of match, matching waiver request, list of proprietary information, eligibility checklist, logic model, indirect cost rate agreement). However, the recommended page limit does apply to the entire application narrative.

6. *Notice of Intent to Apply*: The Department will be able to review grant applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify us of their intent to submit an application. Applicants may access this form using the link available on the Notice of Intent to Apply section of the competition website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>. Applicants that do not submit a notice of intent to apply may still apply for funding; applicants that do submit a notice of intent to apply are not bound to apply or bound by the information provided.

## V. Application Review Information

1. *Selection Criteria*: The selection criteria for the Expansion competition are from 34 CFR 75.210. The points assigned to each criterion are indicated in the parentheses next to the criterion. Together with the competitive preference priority, an applicant may earn up to a total of 105 points based on the selection criteria for the application.

### A. *Significance (up to 15 points)*.

The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

### B. *Strategy to Scale (up to 40 points)*.

The Secretary considers the applicant's strategy to scale the proposed project. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application. (10 points)

(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and

milestones for accomplishing project tasks. (5 points)

(3) The applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in this notice) working directly, or through partners, during the grant period. (10 points)

(4) The mechanisms the applicant will use to broadly disseminate information on its project so as to support further development or replication. (10 points)

(5) The likely utility of the products (such as information, materials, processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings. (5 points)

### C. *Quality of the Project Design (up to 15 points)*.

The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework. (5 points)

(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. (5 points)

(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs. (5 points)

### D. *Quality of the Project Evaluation (up to 30 points)*.

The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice). (15 points)

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings. (5 points)

(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation. (5 points)

(4) The extent to which the methods of evaluation will provide performance feedback and permit periodic

assessment of progress toward achieving intended outcomes. (5 points)

*Note*: Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: <https://ies.ed.gov/ncee/wwc/Handbooks/>; (2) "Technical Assistance Materials for Conducting Rigorous Impact Evaluations": <https://ies.ed.gov/ncee/projects/evaluationTA.asp>; and (3) IES/NCEE Technical Methods papers: [https://ies.ed.gov/ncee/tech\\_methods/](https://ies.ed.gov/ncee/tech_methods/). In addition, applicants may view an optional webinar recording that was hosted by the Institute of Education Sciences. The webinar focused on more rigorous evaluation designs, discussing strategies for designing and executing experimental studies that meet WWC evidence standards without reservations. This webinar is available at: <https://ies.ed.gov/ncee/wwc/Multimedia/18>.

2. *Review and Selection Process*: We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

Before making awards, we will screen applications submitted in accordance with the requirements in this notice to determine whether applications have met eligibility and other requirements. This screening process may occur at various stages of the process; applicants that are determined to be ineligible will not receive a grant, regardless of peer reviewer scores or comments.

Peer reviewers will read, prepare a written evaluation of, and score the assigned applications, using the selection criteria provided in this notice.

3. *Risk Assessment and Specific Conditions*: Consistent with 2 CFR 200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific

conditions and, under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

**4. Integrity and Performance System:** If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently \$250,000), under 2 CFR 200.206(a)(2), we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds \$10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed \$10,000,000.

**5. In General:** In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with:

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials

produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

## VI. Award Administration Information

**1. Award Notices:** If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

**2. Administrative and National Policy Requirements:** We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

**3. Open Licensing Requirements:** Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

**Note:** The evaluation report is a specific deliverable under an Expansion grant that grantees must make available to the public. Additionally, EIR grantees are encouraged to submit final studies resulting from research supported in whole or in part by EIR to the Educational Resources Information Center (<https://eric.ed.gov>).

**4. Reporting:** (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to [www.ed.gov/fund/grant/apply/appforms/appforms.html](http://www.ed.gov/fund/grant/apply/appforms/appforms.html).

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case, the Secretary establishes a data collection period.

**5. Performance Measures:** For the purpose of Department reporting under 34 CFR 75.110, the Department has established a set of performance measures (as defined in this notice) for the Expansion grants.

**Annual performance measures:** (1) The percentage of grantees that reach their annual target number of students as specified in the application; (2) the percentage of grantees that reach their annual target number of high-need students as specified in the application; (3) the percentage of grantees with ongoing well-designed and independent evaluations that will provide evidence of their effectiveness at improving student outcomes in multiple contexts; (4) the percentage of grantees that implement an evaluation that provides information about the key practices and the approach of the project so as to facilitate replication; (5) the percentage of grantees that implement an evaluation that provides information on the cost-effectiveness of the key practices to identify potential obstacles and success factors to scaling; and (6) the cost per student served by the grant.

**Cumulative performance measures:** (1) The percentage of grantees that reach the targeted number of students specified in the application; (2) the percentage of grantees that reach the targeted number of high-need students specified in the application; (3) the percentage of grantees that complete a well-designed, well-implemented, and



independent evaluation that provides evidence of effectiveness at improving student outcomes at scale; (4) the percentage of grantees that complete a well-designed, well-implemented, and independent evaluation that provides information about the key elements and the approach of the project so as to facilitate replication or testing in other settings; (5) the percentage of grantees with a completed evaluation that provides information on the cost-effectiveness of the key practices to identify potential obstacles and success factors to scaling; and (6) the cost per student served by the grant.

#### *Project-Specific Performance*

**Measures:** Applicants must propose project-specific performance measures and performance targets (both as defined in this notice) consistent with the objectives of the proposed project. Applications must provide the following information as directed under 34 CFR 75.110(b) and (c):

(1) Performance measures. How each proposed performance measure would accurately measure the performance of the project and how the proposed performance measure would be consistent with the performance measures established for the program funding the competition.

(2) Baseline (as defined in this notice) data. (i) Why each proposed baseline is valid; or (ii) if the applicant has determined that there are no established baseline data for a particular performance measure, an explanation of why there is no established baseline and of how and when, during the project period, the applicant would establish a valid baseline for the performance measure.

(3) Performance targets. Why each proposed performance target is ambitious yet achievable compared to the baseline for the performance measure and when, during the project period, the applicant would meet the performance target(s).

(4) Data collection and reporting. (i) The data collection and reporting methods the applicant would use and why those methods are likely to yield reliable, valid, and meaningful performance data; and (ii) the applicant's capacity to collect and report reliable, valid, and meaningful performance data, as evidenced by high-quality data collection, analysis, and reporting in other projects or research.

All grantees must submit an annual performance report with information that is responsive to these performance measures.

6. **Continuation Awards:** In making a continuation award under 34 CFR 75.253, the Secretary considers, among

other things, whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

#### **VII. Other Information**

**Accessible Format:** On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotope, or compact disc, or other accessible format.

**Electronic Access to This Document:** The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

**James Lane,**

*Principal Deputy Assistant Secretary,  
Delegated the Authority to Perform the  
Functions and Duties of the Assistant  
Secretary, Office of Elementary and  
Secondary Education.*

[FR Doc. 2023-11000 Filed 5-22-23; 8:45 am]

**BILLING CODE 4000-01-P**

#### **DEPARTMENT OF EDUCATION**

#### **Extension of the Application Deadline Date; Applications for New Awards; Disability Innovation Fund, Pathways to Partnerships Innovative Model Demonstration Project**

**AGENCY:** Office of Special Education and Rehabilitative Services, Department of Education.

**ACTION:** Notice.

**SUMMARY:** On April 5, 2023, the Department of Education (Department) published in the **Federal Register** a notice inviting applications (NIA) for Federal fiscal year 2023 Disability Innovation Fund, Pathways to Partnerships Innovative Model Demonstration Project, Assistance Listing Number 84.421E. The NIA established a deadline date of June 5, 2023, for the transmittal of applications. This notice extends the deadline date for transmittal of applications until July 7, 2023, and extends the deadline for intergovernmental review until August 6, 2023.

#### **DATES:**

*Deadline for Transmittal of Applications:* July 7, 2023.

*Deadline for Intergovernmental Review:* August 6, 2023.

#### **FOR FURTHER INFORMATION CONTACT:**

Cassandra P. Shoffler, U.S. Department of Education, 400 Maryland Avenue SW, Room 5065A, Potomac Center Plaza, Washington, DC 20202-2800. Telephone: (202) 245-7827. Email: [84.421E@ed.gov](mailto:84.421E@ed.gov).

If you are deaf, hard of hearing, or have a speech disability and wish to access telecommunications relay services, please dial 7-1-1.

**SUPPLEMENTARY INFORMATION:** On April 5, 2023, we published the NIA in the **Federal Register** (88 FR 20150). The NIA established a deadline date of June 5, 2023, for the transmittal of applications. We are extending the deadline date for transmittal of applications to allow applicants additional time to complete and submit their applications. We are also extending the intergovernmental review deadline to August 6, 2023. Please note that, under 34 CFR 79.8(a), we have shortened the standard 60-day intergovernmental review period in order to make awards by the end of FY 2023.

Applicants that have submitted applications before the original deadline date of June 5, 2023, may resubmit their applications on or before the new application deadline date of July 7, 2023, but are not required to do so. If a new application is not submitted, the



Department will use the application that was submitted by the original deadline. If a new application is submitted, the Department will consider the application that was last successfully submitted and received by 11:59:59 p.m., Eastern Time, on July 7, 2023.

*Note:* All information in the NIA for this competition remains the same, except for the deadline for the transmittal of applications and the deadline for intergovernmental review.

*Program Authority:* Consolidated Appropriations Act, 2022 (Pub. L. 117–103), 136 Stat. 49.

*Accessible Format:* On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

*Electronic Access to This Document:* The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF, you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at: [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

**Glenna Gallo,**

*Assistant Secretary for Special Education and Rehabilitative Services.*

[FR Doc. 2023–10915 Filed 5–22–23; 8:45 am]

**BILLING CODE 4000–01–P**

## DEPARTMENT OF EDUCATION

### Applications for New Awards; Education Innovation and Research (EIR) Program—Early-Phase Grants

**AGENCY:** Office of Elementary and Secondary Education, Department of Education.

**ACTION:** Notice.

**SUMMARY:** The Department of Education (Department) is issuing a notice inviting

applications for fiscal year (FY) 2023 for the EIR program—Early-phase Grants, Assistance Listing Number 84.411C (Early-phase Grants). This notice relates to the approved information collection under OMB control number 1894–0006.

**DATES:**

*Applications Available:* May 25, 2023.

*Deadline for Notice of Intent to Apply:* June 22, 2023.

*Deadline for Transmittal of Applications:* August 1, 2023.

*Deadline for Intergovernmental Review:* October 2, 2023.

*Pre-Application Information:* The Department will post additional competition information for prospective applicants on the EIR program website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>.

**ADDRESSES:** For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (7 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>. Please note that these Common Instructions supersede the version published on December 27, 2021.

**FOR FURTHER INFORMATION CONTACT:**

Yvonne Crockett, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202–5900. Telephone: (202) 987–1753. Email: [eir@ed.gov](mailto:eir@ed.gov).

If you are deaf, hard of hearing, or have a speech disability and wish to access telecommunications relay services, please dial 7–1–1.

**SUPPLEMENTARY INFORMATION:**

**Full Text of Announcement**

**I. Funding Opportunity Description**

*Purpose of Program:* The EIR program, established under section 4611 of the Elementary and Secondary Education Act, as amended (ESEA), provides funding to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based (as defined in this notice), field-initiated innovations to improve student achievement and attainment for high-need students and to rigorously evaluate such innovations. The EIR program is designed to generate and validate solutions to persistent education

challenges and to support the expansion of those solutions to serve substantially more students.

The central design element of the EIR program is its multitier structure that links the amount of funding an applicant may receive to the quality of the evidence supporting the efficacy of the proposed project, with the expectation that projects that build this evidence will advance through EIR's grant tiers: “Early-phase,” “Mid-phase,” and “Expansion.”

“Early-phase,” “Mid-phase,” and “Expansion” grants differ in terms of the level of prior evidence of effectiveness required for consideration for funding, the expectations regarding the kind of evidence and information funded projects should produce, the level of scale funded projects should reach, and, consequently, the amount of funding available to support each type of project.

Early-phase grants must demonstrate a rationale (as defined in this notice). Early-phase grants provide funding for the development, implementation, and feasibility testing of a program, which prior research suggests has promise, for the purpose of determining whether the program can successfully improve student achievement and attainment for high-need students. Early-phase grants are not intended simply to expand established practices or address needs that are unique to one particular context. Rather, the goal is to determine whether and in what ways relatively new practices can improve student achievement and attainment for high-need students.

This notice invites applications for Early-phase grants only. The notices inviting applications for Mid-phase and Expansion grants are published elsewhere in this issue of the **Federal Register**.

*Background:*

While this notice is for the Early-phase tier only, the premise of the EIR program is that new and innovative educational programs and practices can help to overcome the persistent and significant challenges to student success, particularly for underserved and high-need students. Raise the Bar: Lead the World is the Department's call to action to transform prekindergarten (pre-k) through grade 12 education and unite around what truly works by promoting academic excellence, boldly improving learning conditions, and preparing of our Nation's students for global competitiveness. Consistent with that call to action, the priorities used in this competition advance Raise the Bar's goals to promote academic excellence and boldly improve learning conditions.

In FY 2023, the Department is particularly interested in projects that propose services and activities that help to not only recover from the COVID-19 pandemic but reimagine schools and transform our education system. The priorities used in this competition are designed to create conditions under which students have equitable access to high-quality learning opportunities and experiences.<sup>1</sup>

*Note:* The EIR program statute refers to “high-need students” but does not define the term, which allows applicants to define it for purposes of their proposed project, population, and setting. Note that, for the EIR program, addressing the needs of underserved students (as defined in this notice) is one way to address the statutory requirement for serving “high-need students.”

The EIR program is rooted in innovation; the program is not intended to provide support for practices that are already commonly implemented by educators, unless significant adaptations of such practices warrant testing to determine if they can accelerate achievement or increase the likelihood that the practices can be widely, efficiently, and effectively implemented in new populations and settings. In exchange, these innovations need to be evaluated, and, if they can demonstrate sufficient evidence of effectiveness, the intent is for these innovations to be replicated and tested in new populations and settings.

As an EIR project is implemented, grantees are encouraged to learn more about how the practices improve student achievement and attainment, as well as to develop increasingly rigorous evidence of effectiveness and new strategies to efficiently and cost-effectively scale to new school districts, regions, and States. To meet the required evidence level, applicants must develop a logic model (as defined in this notice), theory of action, or another conceptual framework that includes the goals, objectives, outcomes, and key project components (as defined in this notice) of the project.

All EIR applicants and grantees should also consider how they need to develop their organizational capacity,

project financing, or business plans to sustain their projects and continue implementation and adaptation after Federal funding ends. The Department intends to provide grantees with technical assistance to support dissemination, scaling, and sustainability efforts.

Early-phase grantees are encouraged to make continuous and iterative improvements in project design and implementation before conducting a full-scale evaluation of effectiveness. Grantees should consider how easily others could implement the proposed practice, and how its implementation could potentially be improved. Additionally, grantees should consider using data from early indicators to gauge initial impact and to consider possible changes in implementation that could increase student achievement and attainment.

Early-phase applicants should develop, implement, and test the feasibility of their projects. The evaluation of an Early-phase project should be an experimental or quasi-experimental design study (both as defined in this notice) that can determine whether the program can successfully improve student achievement and attainment for high-need students. Early-phase grantees’ evaluation designs should have the potential to demonstrate a statistically significant effect on improving student outcomes or other relevant outcomes (as defined in this notice) based on moderate evidence (as defined in this notice) from at least one well-designed and well-implemented experimental or quasi-experimental design study. The Department intends to provide grantees and their independent evaluators with evaluation technical assistance. This could include grantees and their independent evaluators providing to the Department or its contractor updated comprehensive evaluation plans in a format as requested by the technical assistance provider and using such tools as the Department may request. Grantees will be encouraged to update this evaluation plan at least annually to reflect any changes to the evaluation, with updates consistent with the scope and objectives of the approved application.

The FY 2023 Early-phase competition includes five absolute priorities and one competitive preference priority. All Early-phase applicants must address Absolute Priority 1. Early-phase applicants are also required to address one of the other four absolute priorities (applicants may not submit under more than one of the other four absolute priorities). All applicants have the

option of addressing Competitive Preference Priority 1 and may opt to do so regardless of the absolute priority they select. Applicants addressing Absolute Priority 5 also have the option to address Competitive Preference Priority 2.

Absolute Priority 1—Demonstrates a Rationale establishes the evidence required for this tier of grants. All Early-phase applicants must submit prior evidence of effectiveness that demonstrates a rationale.

Absolute Priority 2—Field-Initiated Innovations—General gives applicants the option to propose projects that are field-initiated innovations to improve student achievement and attainment.

Absolute Priority 3—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Science, Technology, Engineering, or Mathematics (STEM) is intended to support innovations to improve student achievement and attainment in the STEM education field, consistent with efforts to ensure our Nation’s economic competitiveness by improving and expanding STEM learning and engagement.

In Absolute Priority 3, the Department recognizes the importance of funding pre-K through grade 12 STEM education and anticipates that projects would expand opportunities for high-need students. Within this absolute priority, applicants may focus on expanding opportunities in STEM education, including computer science, for underrepresented students in STEM education, including students of color, girls, English learners, students with disabilities, youth from rural communities, and youth from families living at or below the poverty line, to help reduce the enrollment and achievement gaps in a manner consistent with nondiscrimination requirements contained in Federal civil rights laws.

Absolute Priority 4—Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs is intended to promote high-quality social and emotional learning projects. The disruption caused by the pandemic, along with the growth in youth mental health distress, continue to impact student well-being. It is critical to provide support for students’ social and emotional needs, not only to benefit student well-being, but also to support their academic success as student social, emotional, and academic development are interconnected.

Absolute Priority 5—Field-Initiated Innovations—Promoting Equity in Student Access to Educational

<sup>1</sup> U.S. Secretary of Education Miguel Cardona laid out his vision for the direction the Department will follow in 2023 to promote academic excellence, improve learning conditions, and prepare our students for a world where global engagement is critical to our Nation’s standing. In his address Secretary Cardona remarked that “Raise the Bar: Lead the World” is not a list of new priorities, but a call to strengthen our will to transform education for the better, building on approaches that we know work in education. More information is available at <https://www.ed.gov/raisethebar>.

Resources and Opportunities: Educator Recruitment and Retention is intended to elevate and strengthen the educator workforce in ways that prioritize innovation in recruiting and retaining educators in supporting high-need students. Applicants are encouraged to address fundamental challenges schools face in recruiting and retaining qualified educators, including by addressing the additional responsibilities, burdens, and challenges educators have faced throughout the pandemic and may persist beyond it. For example, projects may address improving supports for educators that enhance the ability of schools to recruit and retain staff (*e.g.*, strategies to support educator wellbeing or structuring staffing and schedules to ensure educators and students are appropriately supported) and increasing access to leadership opportunities that can lead to increased pay and improved retention for fully certified, experienced, and effective educators, while expanding the impact of great teachers within and beyond their classrooms. Projects may support the recruitment and retention of all school staff or specific staff with acute recruitment and retention challenges (*e.g.*, personnel serving students with disabilities).

Competitive Preference Priority 1 is intended to encourage applicants to propose projects that promote partnerships with entities underrepresented under this program. The Department is eager to increase the volume of projects and partners from entities, including community colleges (as defined in this notice), historically Black colleges and universities (as defined in this notice), Tribal Colleges and Universities (as defined in this notice), and minority-serving institutions (as defined in this notice). The Department expects applicants addressing this priority will raise the bar to reimagine schools through partnerships with underrepresented groups in ways that benefit underserved and high-need students.

Competitive Preference Priority 2 is intended to encourage applicants to propose projects that promote an effective and diverse educator workforce by providing teachers a competitive wage and opportunities for advancement and leadership. In addition to a lack of investments in teaching supports and leadership opportunities, the fact that in many States teachers do not earn a livable and competitive wage is a significant contributor to a weak pipeline and high attrition. A tight labor market in many States and communities has also meant that teachers can often earn more

working in non-education sectors, many of which have more robust career ladders. Increasing access to leadership opportunities can lead to increased pay while expanding the impact of great teachers within and beyond their classrooms. The Department expects applicants addressing this priority will raise the bar to improve learning conditions through the hiring and retention of qualified, experienced, effective, and diverse educators. Only applicants who apply for Absolute Priority 5 may apply for Competitive Priority 2.

The Department seeks projects that develop and evaluate evidence-based, field-initiated innovations to remedy the inequities in our country's education system. The proposed innovations should be designed to better enable students to access the educational opportunities they need to succeed in school and reach their full potential.

Through these priorities, the Department intends to advance innovation, build evidence, and address the learning and achievement of underserved and high-need students in pre-K through grade 12.

**Priorities:** This notice includes five absolute priorities and two competitive preference priorities. In accordance with 34 CFR 75.105(b)(2)(ii), Absolute Priority 1 is from the Administrative Priorities for Discretionary Grant Programs published in the **Federal Register** on March 9, 2020 (85 FR 13640) (Administrative Priorities). In accordance with 34 CFR 75.105(b)(2)(iv), Absolute Priority 2 is from the program statute in section 4611(a)(1)(A) of the ESEA. In accordance with 34 CFR 75.105(b)(2)(iv), Absolute Priorities 3, 4, and 5 are from the program statute in section 4611(a)(1)(A) of the ESEA and the Supplemental Priorities and Definitions for Discretionary Grant Programs, published in the **Federal Register** on December 10, 2021 (86 FR 70612) (Supplemental Priorities). The competitive preference priorities are from the Supplemental Priorities.

In the Early-phase grant competition, Absolute Priorities 2, 3, 4, and 5 each constitute separate funding categories. The Secretary intends to award grants under each of these absolute priorities provided that applications submitted are of sufficient quality. To ensure that applicants are reviewed under the absolute priority most relevant to their proposed project, applicants must clearly identify the specific absolute priority that the proposed project addresses. If an applicant is interested in proposing separate projects (*e.g.*, one that addresses Absolute Priority 2 and

another that addresses Absolute Priority 3), it must submit separate applications.

**Absolute Priorities:** For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these priorities are absolute priorities. Under 34 CFR 75.105(c)(3), we consider only applications that meet Absolute Priority 1 and one additional absolute priority (Absolute Priority 2, Absolute Priority 3, Absolute Priority 4, or Absolute Priority 5).

These priorities are:  
**Absolute Priority 1—Applications that Demonstrate a Rationale.**

Projects that demonstrate a rationale.

**Absolute Priority 2—Field-Initiated Innovations—General.**

Projects that are designed to create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students.

**Absolute Priority 3—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: STEM.**

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students; and

(b) Promote educational equity and adequacy in resources and opportunity for underserved students—

(1) In one or more of the following educational settings:

- (i) Early learning programs.
- (ii) Elementary school.
- (iii) Middle school.
- (iv) High school.
- (v) Career and technical education programs.

(vi) Out-of-school-time settings.

(vii) Alternative schools and programs.

(viii) Juvenile justice system or correctional facilities; and

(2) That examine the sources of inequity and inadequacy and implement responses, including rigorous, engaging, and well-rounded (*e.g.*, that include music and the arts) approaches to learning that are inclusive with regard to race, ethnicity, culture, language, and disability status and prepare students for college, career, and civic life, including science, technology, engineering, and mathematics (STEM), including computer science coursework.

**Absolute Priority 4—Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs.**

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated

innovations to improve student achievement and attainment for high-need students; and

(b) Improve students' social, emotional, academic, and career development, with a focus on underserved students, through one or more of the following priority areas:

(1) Developing and supporting educator and school capacity to support social and emotional learning and development that—

(i) Fosters skills and behaviors that enable academic progress;

(ii) Identifies and addresses conditions in the learning environment, that may negatively impact social and emotional well-being for underserved students, including conditions that affect physical safety; and

(iii) Is trauma-informed, such as addressing exposure to community-based violence and trauma specific to military- or veteran-connected students (as defined in this notice).

(2) Creating education or work-based settings that are supportive, positive, identity-safe and inclusive with regard to race, ethnicity, culture, language, and disability status, through one or more of the following activities:

(i) Developing trusting relationships between students (including underserved students), educators, families, and community partners.

(ii) Providing high-quality professional development opportunities designed to increase engagement and belonging and build asset-based mindsets for educators working in and throughout schools.

(iii) Engaging students (including underserved students), educators, families, and community partners from diverse backgrounds and representative of the community as partners in school climate review and improvement efforts.

(iv) Developing and implementing inclusive and culturally informed discipline policies and addressing disparities in school discipline policy by identifying and addressing the root causes of those disparities, including by involving educators, students, and families in decision-making about discipline procedures and providing training and resources to educators.

(3) Providing multi-tiered systems of supports that address learning barriers both in and out of the classroom, that enable healthy development and respond to students' needs and which may include evidence-based trauma-informed practices and professional

development for educators on avoiding deficit-based approaches.

(4) Developing or implementing policies and practices, consistent with applicable Federal law, that prevent or reduce significant disproportionality on the basis of race or ethnicity with respect to the identification, placement, and disciplining of children or students with disabilities (as defined in this notice).

(5) Providing students equitable access that is inclusive, with regard to race, LGBTQI+, ethnicity, culture, language, and disability status, to social workers, psychologists, counselors, nurses, or mental health professionals and other integrated services and supports, which may include in early learning environments.

(6) Preparing educators to implement project-based or experiential learning opportunities for students to strengthen their metacognitive skills, self-direction, self-efficacy, competency, or motivation, including through instruction that: Connects to students' prior knowledge and experience; provides rich, engaging, complex, and motivating tasks; and offers opportunities for collaborative learning.

(7) Creating and implementing comprehensive schoolwide frameworks (such as small schools or learning communities, advisory systems, or looping educators) that support strong and consistent student and educator relationships.

(8) Fostering partnerships, including across government agencies (e.g., housing, human services, employment agencies), local educational agencies, community-based organizations, adult learning providers, and postsecondary education intuitions, to provide comprehensive services to students and families that support students' social, emotional, mental health, and academic needs, and that are inclusive with regard to race, ethnicity, culture, language, and disability status.

*Absolute Priority 5—Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Educator Recruitment and Retention.*

Projects that are designed to—

(a) Create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated

innovations to improve student achievement and attainment for high-need students; and

(b) Promote educational equity and adequacy in resources and opportunity for underserved students—

(1) In one or more of the following educational settings:

(i) Early learning programs.

(ii) Elementary school.

(iii) Middle school.

(iv) High school.

(v) Career and technical education programs.

(vi) Out-of-school-time settings.

(vii) Alternative schools and programs.

(viii) Juvenile justice system or correctional facilities; and

(2) That examine the sources of inequity and inadequacy and implement responses, and that may include one or more of the following:

(i) Increasing the number and proportion of experienced, fully certified, in-field, and effective educators, and educators from traditionally underrepresented backgrounds or the communities they serve, to ensure that underserved students have educators from those backgrounds and communities and are not taught at disproportionately higher rates by uncertified, out-of-field, and novice teachers compared to their peers.

*Note:* All strategies to increase racial diversity of educators must comply with the nondiscrimination requirements contained in Federal civil rights laws.

(ii) Improving the preparation, recruitment, and early career support and development of educators in shortage areas or hard to staff schools.

(iii) Improving the retention of fully certified, experienced, and effective educators in high-need schools or shortage areas.

*Competitive Preference Priorities:* For FY 2023 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these priorities are competitive preference priorities. Under 34 CFR 75.105(c)(2)(i), we award up to an additional 5 points to an application, depending on how well the application addresses Competitive Preference Priority 1 and up to an additional 2 points to an application, depending on how well the application addresses Competitive Preference Priority 2. Only applicants that address Absolute Priority 5 may address and receive points under Competitive Preference Priority 2.

These priorities are:

*Competitive Preference Priority 1—Promoting Equity in Student Access to Educational Resources and Opportunities: Implementers and Partners (up to 5 points).*

Under this priority, an applicant must demonstrate how the project will be implemented by or in partnership with one or more of the following entities:

(a) Community colleges (as defined in this notice).

(b) Historically Black colleges and universities (as defined in this notice).

(c) Tribal Colleges and Universities (as defined in this notice).

(d) Minority-serving institutions (as defined in this notice).

*Competitive Preference Priority 2—Supporting a Diverse Educator Workforce and Professional Growth to Strengthen Student Learning (up to 2 points).*

Projects that are designed to increase the proportion of well-prepared, diverse, and effective educators serving students, with a focus on underserved students, through building or expanding high-poverty school districts' capacity to hire, support, and retain an effective and diverse educator workforce, through adopting or expanding comprehensive, strategic career and compensation systems that provide competitive compensation and include opportunities for educators to serve as mentors and instructional coaches, or to take on additional leadership roles and responsibilities for which educators are compensated.

*Definitions:* The following definitions apply to this program. The definitions of "baseline," "demonstrates a rationale," "experimental study," "logic model," "moderate evidence," "nonprofit," "performance measure," "performance target," "project component," "quasi-experimental design study," "relevant outcome," and "What Works Clearinghouse Handbooks (WWC Handbooks)" are from 34 CFR 77.1. The definitions of "community college," "children or students with disabilities," "disconnected youth," "early learning," "educator," "English learner," "historically Black colleges and universities," "military- or veteran-connected student," "minority-serving institutions," "Tribal College or University," and "underserved students" are from the Supplemental Priorities. The definitions of "evidence-based," "local educational agency" and "State educational agency" are from section 8101 of the ESEA.

*Baseline* means the starting point from which performance is measured and targets are set.

*Children or students with disabilities* means children with disabilities as defined in section 602(3) of the Individuals with Disabilities Education Act (IDEA) (20 U.S.C. 1401(3)) and 34 CFR 300.8, or students with disabilities, as defined in the Rehabilitation Act of 1973 (29 U.S.C. 705(37), 705(20)(B)).

*Community college* means "junior or community college" as defined in section 312(f) of the Higher Education Act of 1965, as amended (HEA).

*Demonstrates a rationale* means a key project component included in the project's logic model is informed by research or evaluation findings that suggest the project component is likely to improve relevant outcomes.

*Disconnected youth* means an individual, between the ages 14 and 24, who may be from a low-income background, experiences homelessness, is in foster care, is involved in the justice system, or is not working or not enrolled in (or at risk of dropping out of) an educational institution.

*Early learning* means any (a) State-licensed or State-regulated program or provider, regardless of setting or funding source, that provides early care and education for children from birth to kindergarten entry, including, but not limited to, any program operated by a child care center or in a family child care home; (b) program funded by the Federal Government or State or local educational agencies (including any IDEA-funded program); (c) Early Head Start and Head Start program; (d) nonrelative child care provider who is not otherwise regulated by the State and who regularly cares for two or more unrelated children for a fee in a provider setting; and (e) other program that may deliver early learning and development services in a child's home, such as the Maternal, Infant, and Early Childhood Home Visiting Program; Early Head Start; and Part C of IDEA.

*Educator* means an individual who is an early learning educator, teacher, principal or other school leader, specialized instructional support personnel (e.g., school psychologist, counselor, school social worker, early intervention service personnel), paraprofessional, or faculty.

*English learner* means an individual who is an English learner as defined in section 8101(20) of the ESEA, or an individual who is an English language learner as defined in section 203(7) of the Workforce Innovation and Opportunity Act.

*Evidence-based* means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) strong evidence from at least 1 well-designed and well-implemented experimental study;

(II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) promising evidence from at least 1 well-designed

and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

*Experimental study* means a study that is designed to compare outcomes between two groups of individuals (such as students) that are otherwise equivalent except for their assignment to either a treatment group receiving a project component or a control group that does not. Randomized controlled trials, regression discontinuity design studies, and single-case design studies are the specific types of experimental studies that, depending on their design and implementation (e.g., sample attrition in randomized controlled trials and regression discontinuity design studies), can meet What Works Clearinghouse (WWC) standards without reservations as described in the WWC Handbooks (as defined in this notice):

(i) A randomized controlled trial employs random assignment of, for example, students, teachers, classrooms, or schools to receive the project component being evaluated (the treatment group) or not to receive the project component (the control group).

(ii) A regression discontinuity design study assigns the project component being evaluated using a measured variable (e.g., assigning students reading below a cutoff score to tutoring or developmental education classes) and controls for that variable in the analysis of outcomes.

(iii) A single-case design study uses observations of a single case (e.g., a student eligible for a behavioral intervention) over time in the absence and presence of a controlled treatment manipulation to determine whether the outcome is systematically related to the treatment.

*Historically Black colleges and universities* means colleges and universities that meet the criteria set out in 34 CFR 608.2.

*Local educational agency (LEA)* means:

(a) In General. A public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or of or for a combination of school districts or counties that is recognized in a State as

an administrative agency for its public elementary schools or secondary schools.

(b) Administrative Control and Direction. The term includes any other public institution or agency having administrative control and direction of a public elementary school or secondary school.

(c) Bureau of Indian Education Schools. The term includes an elementary school or secondary school funded by the Bureau of Indian Education but only to the extent that including the school makes the school eligible for programs for which specific eligibility is not provided to the school in another provision of law and the school does not have a student population that is smaller than the student population of the LEA receiving assistance under the ESEA with the smallest student population, except that the school shall not be subject to the jurisdiction of any State educational agency (SEA) (as defined in this notice) other than the Bureau of Indian Education.

(d) Educational Service Agencies. The term includes educational service agencies and consortia of those agencies.

(e) State Educational Agency. The term includes the SEA in a State in which the SEA is the sole educational agency for all public schools.

*Logic model* (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.*, the active “ingredients” that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

*Military- or veteran-connected student* means one or more of the following:

(a) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a member of the uniformed services (as defined by 37 U.S.C. 101), in the Army, Navy, Air Force, Marine Corps, Coast Guard, Space Force, National Guard, Reserves, National Oceanic and Atmospheric Administration, or Public Health Service or is a veteran of the uniformed services with an honorable discharge (as defined by 38 U.S.C. 3311).

(b) A student who is a member of the uniformed services, a veteran of the uniformed services, or the spouse of a service member or veteran.

(c) A child participating in an early learning program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a veteran of the uniformed services (as defined by 37 U.S.C. 101).

*Minority-serving institution* means an institution that is eligible to receive assistance under sections 316 through 320 of part A of title III, under part B of title III, or under title V of the HEA.

*Moderate evidence* means that there is evidence of effectiveness of a key project component in improving a relevant outcome for a sample that overlaps with the populations or settings proposed to receive that component, based on a relevant finding from one of the following:

(i) A practice guide prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “strong evidence base” or “moderate evidence base” for the corresponding practice guide recommendation;

(ii) An intervention report prepared by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks reporting a “positive effect” or “potentially positive effect” on a relevant outcome based on a “medium to large” extent of evidence, with no reporting of a “negative effect” or “potentially negative effect” on a relevant outcome; or

(iii) A single experimental study (as defined in this notice) or quasi-experimental design study (as defined in this notice) reviewed and reported by the WWC using version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks, or otherwise assessed by the Department using version 4.1 of the WWC Handbook, as appropriate, and that—

(A) Meets WWC standards with or without reservations;

(B) Includes at least one statistically significant and positive (*i.e.*, favorable) effect on a relevant outcome;

(C) Includes no overriding statistically significant and negative effects on relevant outcomes reported in the study or in a corresponding WWC intervention report prepared under version 2.1, 3.0, 4.0, or 4.1 of the WWC Handbooks; and

(D) Is based on a sample from more than one site (*e.g.*, State, county, city, school district, or postsecondary campus) and includes at least 350 students or other individuals across sites. Multiple studies of the same project component that each meet requirements in paragraphs (iii)(A), (B), and (C) of this definition may together satisfy this requirement.

*Nonprofit*, as applied to an agency, organization, or institution, means that it is owned and operated by one or more corporations or associations whose net earnings do not benefit, and cannot lawfully benefit, any private shareholder or entity.

*Performance measure* means any quantitative indicator, statistic, or metric used to gauge program or project performance.

*Performance target* means a level of performance that an applicant would seek to meet during the course of a project or as a result of a project.

*Project component* means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (*e.g.*, training teachers on instructional practices for English learners and follow-on coaching for these teachers).

*Quasi-experimental design study* means a study using a design that attempts to approximate an experimental study by identifying a comparison group that is similar to the treatment group in important respects. This type of study, depending on design and implementation (*e.g.*, establishment of baseline equivalence of the groups being compared), can meet WWC standards with reservations, but cannot meet WWC standards without reservations, as described in the WWC Handbooks.

*Relevant outcome* means the student outcome(s) or other outcome(s) the key project component is designed to improve, consistent with the specific goals of the program.

*State educational agency (SEA)* means the agency primarily responsible for the State supervision of public elementary schools and secondary schools.

*Tribal College or University* has the meaning ascribed it in section 316(b)(3) of the HEA.

*Underserved student* means a student (which may include children in early learning environments, students in K–12 programs, and students in postsecondary education or career and technical education, as appropriate) in one or more of the following subgroups:

(a) A student who is living in poverty or is served by schools with high concentrations of students living in poverty.

(b) A student of color.

(c) A student who is a member of a federally recognized Indian Tribe.

(d) An English learner.

(e) A child or student with a disability.

(f) A disconnected youth.

(g) A technologically unconnected youth.

(h) A migrant student.

(i) A student experiencing homelessness or housing insecurity.

(j) A lesbian, gay, bisexual, transgender, queer or questioning, or intersex (LGBTQI+) student.

(k) A student who is in foster care.

(l) A student without documentation of immigration status.

(m) A pregnant, parenting, or caregiving student.

(n) A student impacted by the justice system, including a formerly incarcerated student.

(o) A student who is the first in their family to attend postsecondary education.

(p) A student performing significantly below grade level.

(q) A military- or veteran- connected student.

*What Works Clearinghouse Handbooks (WWC Handbooks)* means the standards and procedures set forth in the WWC Standards Handbook, Versions 4.0 or 4.1, and WWC Procedures Handbook, Versions 4.0 or 4.1, or in the WWC Procedures and Standards Handbook, Version 3.0 or Version 2.1 (all incorporated by reference, see § 77.2). Study findings eligible for review under WWC standards can meet WWC standards without reservations, meet WWC standards with reservations, or not meet WWC standards. WWC practice guides and intervention reports include findings from systematic reviews of evidence as described in the WWC Handbooks documentation.

*Note:* The What Works Clearinghouse Procedures and Standards Handbook (Version 4.1), as well as the more recent What Works Clearinghouse Handbooks released in August 2022 (Version 5.0), are available at <https://ies.ed.gov/ncee/wwc/Handbooks>.

*Program Authority:* 20 U.S.C. 7261.

*Note:* Projects will be awarded and must be operated in a manner consistent with the nondiscrimination requirements contained in Federal civil rights laws.

*Applicable Regulations:* (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as

adopted and amended as regulations of the Department in 2 CFR part 3474. (d) The Administrative Priorities. (e) The Supplemental Priorities.

*Note:* The regulations in 34 CFR part 86 apply to institutions of higher education (IHEs) only.

## II. Award Information

*Type of Award:* Discretionary grants.

*Estimated Available Funds:* \$273,000,000.

These estimated available funds are the total available for new awards for all three types of grants under the EIR program (Early-phase, Mid-phase, and Expansion grants).

Contingent upon the availability of funds and the quality of applications, we may make additional awards in subsequent years from the list of unfunded applications from this competition.

*Estimated Average Size of Awards:* Up to \$4,000,000.

*Maximum Award:* We will not make an award exceeding \$4,000,000 for a project period of 60 months. The Department intends to fund one or more projects under each of the EIR competitions, including Expansion (84.411A), Mid-phase (84.411B), and Early-phase (84.411C). Entities may submit applications for different projects for more than one competition (Early-phase, Mid-phase, and Expansion). The maximum new award amount a grantee may receive under these three competitions, taken together, is \$15,000,000. If an entity is within funding range for multiple applications, the Department will award the highest scoring applications up to \$15,000,000.

*Estimated Number of Awards:* 17–38.

*Note:* The Department is not bound by any estimates in this notice.

*Project Period:* Up to 60 months.

*Note:* Under section 4611(c) of the ESEA, the Department must use at least 25 percent of EIR funds for a fiscal year to make awards to applicants serving rural areas, contingent on receipt of a sufficient number of applications of sufficient quality. For purposes of this competition, we will consider an applicant as rural if the applicant meets the qualifications for rural applicants as described in the *Eligible Applicants* section and the applicant certifies that it meets those qualifications through the application. In implementing this statutory provision and program requirement, the Department may fund high-quality applications from rural applicants out of rank order in the Early-phase competition. In addition, from the estimated funds for this competition, the Department intends to award an estimated \$87 million in funds

for STEM projects and \$87 million in funds for social and emotional learning projects, contingent on receipt of a sufficient number of applications of sufficient quality.

## III. Eligibility Information

### 1. Eligible Applicants:

(a) An LEA;

(b) An SEA;

(c) The Bureau of Indian Education (BIE);

(d) A consortium of SEAs or LEAs;

(e) A nonprofit (as defined in this notice) organization; and

(f) An LEA, an SEA, the BIE, or a consortium described in clause (d), in partnership with—

(1) A nonprofit organization;

(2) A business;

(3) An educational service agency; or

(4) An IHE.

To qualify as a rural applicant under the EIR program, an applicant must meet both of the following requirements:

(a) The applicant is—

(1) An LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;

(2) A consortium of such LEAs;

(3) An educational service agency or a nonprofit organization in partnership with such an LEA; or

(4) A grantee described in clause (1) or (2) in partnership with an SEA; and

(b) A majority of the schools to be served by the program are designated with a locale code of 32, 33, 41, 42, or 43, or a combination of such codes, as determined by the Secretary.

Applicants are encouraged to retrieve locale codes from the National Center for Education Statistics School District search tool (<https://nces.ed.gov/ccd/districtsearch/>), where districts can be looked up individually to retrieve locale codes, and the Public School search tool (<https://nces.ed.gov/ccd/schoolsearch/>), where individual schools can be looked up to retrieve locale codes. More information on rural applicant eligibility will be in the application package for this competition.

*Note:* If you are a nonprofit organization, under 34 CFR 75.51, you may demonstrate your nonprofit status by providing: (1) proof that the Internal Revenue Service currently recognizes the applicant as an organization to which contributions are tax deductible under section 501(c)(3) of the Internal Revenue Code; (2) a statement from a State taxing body or the State attorney general certifying that the organization is a nonprofit organization operating within the State and that no part of its net earnings may lawfully benefit any private shareholder or individual; (3) a



certified copy of the applicant's certificate of incorporation or similar document if it clearly establishes the nonprofit status of the applicant; or (4) any item described above if that item applies to a State or national parent organization, together with a statement by the State or parent organization that the applicant is a local nonprofit affiliate.

In addition, with respect to IHEs and their affiliates, the following may apply for a grant in this competition: (1) As noted above, any IHE that is a partner in an application submitted by an LEA, SEA, BIE, consortium of SEAs or LEAs, or a nonprofit organization; (2) A private IHE that is a nonprofit organization may apply for an EIR grant; (3) A nonprofit organization, such as a development foundation, that is affiliated with a public IHE; and (4) A public IHE with 501(c)(3) status. A public IHE without 501(c)(3) status (even if that entity is tax exempt under Section 115 of the Internal Revenue Code or any other State or Federal provision), or that could not provide any other documentation of nonprofit status described above, however, would not qualify as a nonprofit organization, and therefore would not be eligible to apply for and receive an EIR grant.

2. a. *Cost Sharing or Matching*: Under section 4611(d) of the ESEA, each grant recipient must provide, from Federal, State, local, or private sources, an amount equal to 10 percent of funds provided under the grant, which may be provided in cash or through in-kind contributions, to carry out activities supported by the grant. Grantees must include a budget showing their matching contributions to the budget amount of EIR grant funds and must provide evidence of their matching contributions for the first year of the grant in their grant applications.

Section 4611(d) of the ESEA authorizes the Secretary to waive the matching requirement on a case-by-case basis, upon a showing of exceptional circumstances, such as:

- (i) The difficulty of raising matching funds for a program to serve a rural area;
- (ii) The difficulty of raising matching funds in areas with a concentration of LEAs or schools with a high percentage of students aged 5 through 17—

(A) Who are in poverty, as counted in the most recent census data approved by the Secretary;

(B) Who are eligible for a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 *et seq.*);

(C) Whose families receive assistance under the State program funded under

part A of title IV of the Social Security Act (42 U.S.C. 601 *et seq.*); or

(D) Who are eligible to receive medical assistance under the Medicaid program; and

(iii) The difficulty of raising funds on Tribal land.

An applicant that wishes to apply for a waiver must include a request in its application, describing the exceptional circumstances that make it difficult for the applicant to meet the matching requirement. Further information about applying for waivers can be found in the application package for this competition.

b. *Indirect Cost Rate Information*: This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see [www2.ed.gov/about/offices/list/ocfo/intro.html](http://www2.ed.gov/about/offices/list/ocfo/intro.html).

c. *Administrative Cost Limitation*: This program does not include any program-specific limitation on administrative expenses. All administrative expenses must be reasonable and necessary and conform to Cost Principles described in 2 CFR part 200 subpart E of the Uniform Guidance.

3. *Subgrantees*: A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application.

4. *Other: a. Funding Categories*: An applicant will be considered for an award only for the type of EIR grant for which it applies (*i.e.*, Early-phase: Absolute Priority 2, Early-phase: Absolute Priority 3, or Early-phase: Absolute Priority 4). An applicant may not submit an application for the same proposed project under more than one type of grant (*e.g.*, both an Early-phase grant and Mid-phase grant).

*Note*: Each application will be reviewed under the competition in which it was submitted in the *Grants.gov* system, and only applications that are successfully submitted by the established deadline will be peer reviewed. Applicants should be careful that they download the intended EIR application package and that they submit their applications under the intended EIR competition.

b. *Evaluation*: The grantee must conduct an independent evaluation of the effectiveness of its project.

c. *High-need students*: The grantee must serve high-need students.

#### IV. Application and Submission Information

1. *Application Submission Instructions*: Applicants are required to follow the Common Instructions for

Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 7, 2022 (87 FR 75045), and available at <https://www.federalregister.gov/documents/2022/12/07/2022-26554/common-instructions-for-applicants-to-department-of-education-discretionary-grant-programs>, which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on December 27, 2021.

2. *Submission of Proprietary Information*: Given the types of projects that may be proposed in applications for Early-phase grants, your application may include business information that you consider proprietary. In 34 CFR 5.11 we define “business information” and describe the process we use in determining whether any of that information is proprietary and, thus, protected from disclosure under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended).

Because we plan to make successful applications available to the public, you may wish to request confidentiality of business information.

Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under “Other Attachments Form,” please list the page number or numbers on which we can find this information. For additional information please see 34 CFR 5.11(c).

3. *Intergovernmental Review*: This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

4. *Funding Restrictions*: We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. *Recommended Page Limit*: The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative for an Early-phase grant to no more than 25 pages and (2) use the following standards:

- A “page” is 8.5” x 11”, on one side only, with 1” margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the



application narrative, including titles, headings, footnotes, quotations, references, and captions, as well as all text in charts, tables, figures, and graphs.

- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).

- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; one-page abstract; evidence form; or appendices (e.g., nonprofit documentation, resumes, letters of support, demonstration of match, matching waiver request, list of proprietary information, eligibility checklist, logic model, indirect cost rate agreement). However, the recommended page limit does apply to the entire application narrative.

6. *Notice of Intent to Apply*: The Department will be able to review grant applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify us of their intent to submit an application. Applicants may access this form using the link available on the Notice of Intent to Apply section of the competition website: <https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/>. Applicants that do not submit a notice of intent to apply may still apply for funding; applicants that do submit a notice of intent to apply are not bound to apply or bound by the information provided.

## V. Application Review Information

1. *Selection Criteria*: The selection criteria for the Early-phase competition are from 34 CFR 75.210. The points assigned to each criterion are indicated in the parentheses next to the criterion. Together with the competitive preference priorities, an applicant may earn up to a total of 105 points for Absolute Priorities 2, 3, and 4 and 107 points for Absolute Priority 5 based on the selection criteria for the application.

### A. Significance (up to 20 points).

The Secretary considers the significance of the proposed project. In determining the significance of the proposed project, the Secretary considers the extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

### B. Quality of the Project Design (up to 30 points).

The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

(1) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework. (10 points)

(2) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. (5 points)

(3) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs. (15 points)

### C. Quality of Project Personnel (up to 10 points).

The Secretary considers the quality of the personnel who will carry out the proposed project. In determining the quality of project personnel, the Secretary considers the extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. In addition, the Secretary considers the qualifications, including relevant training and experience, of key project personnel.

### D. Quality of the Management Plan (up to 10 points).

The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan, the Secretary considers the adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

### E. Quality of the Project Evaluation (up to 30 points).

The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards with or without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice). (20 points)

(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic

assessment of progress toward achieving intended outcomes. (5 points)

(3) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation. (5 points)

*Note*: Applicants may wish to review the following technical assistance resources on evaluation: (1) WWC Procedures and Standards Handbooks: <https://ies.ed.gov/ncee/wwc/Handbooks/>; (2) "Technical Assistance Materials for Conducting Rigorous Impact Evaluations": <https://ies.ed.gov/ncee/projects/evaluationTA.asp>; and (3) IES/NCEE Technical Methods papers: [https://ies.ed.gov/ncee/tech\\_methods/](https://ies.ed.gov/ncee/tech_methods/). In addition, applicants may view an optional webinar recording that was hosted by the Institute of Education Sciences. The webinar focused on more rigorous evaluation designs, discussing strategies for designing and executing experimental studies that meet WWC evidence standards without reservations. This webinar is available at: <https://ies.ed.gov/ncee/wwc/Multimedia/18>.

2. *Review and Selection Process*: We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

Before making awards, we will screen applications submitted in accordance with the requirements in this notice to determine whether applications have met eligibility and other requirements. This screening process may occur at various stages of the process; applicants that are determined to be ineligible will not receive a grant, regardless of peer reviewer scores or comments.

Peer reviewers will read, prepare a written evaluation of, and score the assigned applications, using the selection criteria provided in this notice.

3. *Risk Assessment and Specific Conditions*: Consistent with 2 CFR

200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions and, under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

4. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently \$250,000), under 2 CFR 200.206(a)(2), we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds \$10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed \$10,000,000.

5. *In General:* In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with:

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the

National Defense Authorization Act of 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

## VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

2. *Administrative and National Policy Requirements:* We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded Early-phase grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

*Note:* The evaluation report is a specific deliverable under an Early-phase grant that grantees must make available to the public. Additionally, EIR grantees are encouraged to submit

final studies from research supported in whole or in part by EIR to the Educational Resources Information Center (<https://eric.ed.gov>).

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to [www.ed.gov/fund/grant/apply/appforms/appforms.html](http://www.ed.gov/fund/grant/apply/appforms/appforms.html).

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case, the Secretary establishes a data collection period.

5. *Performance Measures:* For the purpose of Department reporting under 34 CFR 75.110, the Department has established a set of performance measures (as defined in this notice) for the Early-phase grants.

*Annual performance measures:* (1) The percentage of grantees that reach their annual target number of students as specified in the application; (2) the percentage of grantees that reach their annual target number of high-need students as specified in the application; (3) the percentage of grantees with ongoing well-designed and independent evaluations designed to provide performance feedback to inform project design; (4) the percentage of grantees with ongoing well-designed and independent evaluations that will provide evidence of their effectiveness at improving student outcomes; (5) the percentage of grantees that implement an evaluation that provides information about the key elements and the approach of the project to facilitate testing, development, or replication in other settings; and (6) the cost per student served by the grant.

*Cumulative performance measures:* (1) The percentage of grantees that reach the targeted number of students specified in the application; (2) the percentage of grantees that reach the

targeted number of high-need students specified in the application; (3) the percentage of grantees that use evaluation data to make changes to their practice(s); (4) the percentage of grantees that complete a well-designed, well-implemented, and independent evaluation that provides evidence of their effectiveness at improving student outcomes; (5) the percentage of grantees with a completed evaluation that provides information about the key elements and the approach of the project so as to facilitate testing, development, or replication in other settings; and (6) the cost per student served by the grant.

**Project-Specific Performance Measures:** Applicants must propose project-specific performance measures and performance targets (both as defined in this notice) consistent with the objectives of the proposed project. Applications must provide the following information as directed under 34 CFR 75.110(b) and (c):

(1) Performance measures. How each proposed performance measure would accurately measure the performance of the project and how the proposed performance measure would be consistent with the performance measures established for the program funding the competition.

(2) Baseline (as defined in this notice) data. (i) Why each proposed baseline is valid; or (ii) if the applicant has determined that there are no established baseline data for a particular performance measure, an explanation of why there is no established baseline and of how and when, during the project period, the applicant would establish a valid baseline for the performance measure.

(3) Performance targets. Why each proposed performance target is ambitious yet achievable compared to the baseline for the performance measure and when, during the project period, the applicant would meet the performance target(s).

(4) Data collection and reporting. (i) The data collection and reporting methods the applicant would use and why those methods are likely to yield reliable, valid, and meaningful performance data; and (ii) the applicant's capacity to collect and report reliable, valid, and meaningful performance data, as evidenced by high-quality data collection, analysis, and reporting in other projects or research.

All grantees must submit an annual performance report with information that is responsive to these performance measures.

6. **Continuation Awards:** In making a continuation award under 34 CFR

75.253, the Secretary considers, among other things, whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

## VII. Other Information

**Accessible Format:** On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

**Electronic Access to This Document:** The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at [www.govinfo.gov](http://www.govinfo.gov). At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at [www.federalregister.gov](http://www.federalregister.gov). Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

**James Lane,**

*Principal Deputy Assistant Secretary, Delegated the Authority to Perform the Functions and Duties of the Assistant Secretary, Office of Elementary and Secondary Education.*

[FR Doc. 2023-10998 Filed 5-22-23; 8:45 am]

**BILLING CODE 4000-01-P**

## DEPARTMENT OF EDUCATION

[Docket No.: ED-2023-SCC-0090]

### Agency Information Collection Activities; Comment Request; Special Education-Individual Reporting on Regulatory Compliance Related to the Personnel Development Program's Service Obligation

**AGENCY:** Office of Special Education and Rehabilitative Services (OSERS), Department of Education (ED).

**ACTION:** Notice.

**SUMMARY:** In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a revision of a currently approved information collection request (ICR).

**DATES:** Interested persons are invited to submit comments on or before July 24, 2023.

**ADDRESSES:** To access and review all the documents related to the information collection listed in this notice, please use <http://www.regulations.gov> by searching the Docket ID number ED-2023-SCC-0090. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the [www.regulations.gov](http://www.regulations.gov) site is not available to the public for any reason, the Department will temporarily accept comments at [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov). Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. Please note that comments submitted after the comment period will not be accepted. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Manager of the Strategic Collections and Clearance Governance and Strategy Division, U.S. Department of Education, 400 Maryland Ave. SW, LBJ, Room 6W203, Washington, DC 20202-8240.

**FOR FURTHER INFORMATION CONTACT:** For specific questions related to collection activities, please contact Celia Rosenquist, (202) 245-7373.

**SUPPLEMENTARY INFORMATION:** The Department, in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and

minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Department is soliciting comments on the proposed information collection request (ICR) that is described below. The Department is especially interested in public comment addressing the following issues: (1) is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

*Title of Collection:* Special Education-Individual Reporting on Regulatory Compliance Related to the Personnel Development Program's Service Obligation.

*OMB Control Number:* 1820-0686.

*Type of Review:* Revision of a currently approved ICR.

*Respondents/Affected Public:* State, Local, and Tribal Governments; Individuals or Households.

*Total Estimated Number of Annual Responses:* 73,368.

*Total Estimated Number of Annual Burden Hours:* 10,874.

*Abstract:* The Office of Special Education Program's Personnel Development Program aims to increase the supply of qualified personnel in the field of special education. The program awards competitive grants to Institutions of Higher Education to support scholars who are preparing to provide special education and related services to children and youth with disabilities. Scholars who receive funding agree to work in the field of special education or related services for two years for each year of support they receive.

The Personnel Development Program Data Collection System collects data from grantees, scholars, and employers who verify that scholars are employed in the field of special education or related services. This data collection serves three program needs. First, data from grantees, scholars, and employers are necessary to assess the performance of the Personnel Development Program on its performance measures. Second, data from all three sources are necessary to determine if scholars comply with the service obligation requirements. Finally,

project-specific performance data are collected from grantees for project monitoring and program improvement.

Dated: May 17, 2023.

**Juliana Pearson,**

*PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.*

[FR Doc. 2023-10885 Filed 5-22-23; 8:45 am]

**BILLING CODE 4000-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings # 1

Take notice that the Commission received the following exempt wholesale generator filings:

*Docket Numbers:* EG23-154-000.

*Applicants:* Fox Squirrel Solar LLC.

*Description:* Fox Squirrel Solar LLC

submits Notice of Self-Certification of Exempt Wholesale Generator Status.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5113.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* EG23-155-000.

*Applicants:* Huck Finn Solar, LLC.

*Description:* Huck Finn Solar, LLC

submits Notice of Self-Certification of Exempt Wholesale Generator Status.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5114.

*Comment Date:* 5 p.m. ET 6/7/23.

Take notice that the Commission received the following electric rate filings:

*Docket Numbers:* ER22-616-002.

*Applicants:* Dressor Plains Solar, LLC.

*Description:* Midcontinent

Independent System Operator, Inc.

submits tariff filing per 35.19a(b):

Refund Report Dressor Plains Solar, LLC to be effective N/A.

*Filed Date:* 5/16/23.

*Accession Number:* 20230516-5187.

*Comment Date:* 5 p.m. ET 6/6/23.

*Docket Numbers:* ER22-865-001.

*Applicants:* Glaciers Edge Wind

Project, LLC.

*Description:* Midcontinent

Independent System Operator, Inc.

submits tariff filing per 35.19a(b):

Refund Report Glaciers Edge Wind Project LLC to be effective N/A.

*Filed Date:* 5/16/23.

*Accession Number:* 20230516-5182.

*Comment Date:* 5 p.m. ET 6/6/23.

*Docket Numbers:* ER22-1554-001.

*Applicants:* Ford County Wind Farm LLC.

*Description:* Midcontinent

Independent System Operator, Inc.

submits tariff filing per 35.19a(b): Refund Report Ford County Wind Farm LLC to be effective N/A.

*Filed Date:* 5/16/23.

*Accession Number:* 20230516-5184.

*Comment Date:* 5 p.m. ET 6/6/23.

*Docket Numbers:* ER23-1895-000.

*Applicants:* Solar Partners XI, LLC.

*Description:* Baseline eTariff Filing:

Application for Market Based Rate

Authority to be effective 7/17/2023.

*Filed Date:* 5/16/23.

*Accession Number:* 20230516-5174.

*Comment Date:* 5 p.m. ET 6/6/23.

*Docket Numbers:* ER23-1896-000.

*Applicants:* PJM Interconnection,

L.L.C.

*Description:* § 205(d) Rate Filing:

Original ISA, Service Agreement No.

6911; Queue No. AE2-316 to be

effective 4/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5026.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1897-000.

*Applicants:* Digital Power USA, Inc.

*Description:* Baseline eTariff Filing:

Application for Market Based Rate

Authority to be effective 7/15/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5042.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1898-000.

*Applicants:* PJM Interconnection,

L.L.C.

*Description:* Tariff Amendment:

Notice of Cancellation of ISA, SA No.

6756; Queue No. AF1-105 to be

effective 4/14/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5043.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1899-000.

*Applicants:* PJM Interconnection,

L.L.C.

*Description:* § 205(d) Rate Filing:

Original ISA, SA No. 6887; Queue No.

AE2-219 to be effective 4/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5073.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1900-000.

*Applicants:* Ohio Valley Electric

Corporation.

*Description:* Tariff Amendment:

Notice of Cancellation to be effective

7/16/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5083.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1901-000.

*Applicants:* Duke Energy Carolinas,

LLC.

*Description:* § 205(d) Rate Filing:

Wholesale Contract Revisions to Rate

Schedule Nos. 315, 316, 317 and 335 to

be effective 1/1/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5084.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1902-000.

*Applicants:* Indiana-Kentucky Electric Corporation.

*Description:* Baseline eTariff Filing: Baseline Filing to be effective 7/16/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5086.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1903-000.

*Applicants:* PJM Interconnection, L.L.C.

*Description:* § 205(d) Rate Filing: Original ISA, Service Agreement No. 6912; Queue No. AD2-038 to be effective 4/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5087.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1904-000.

*Applicants:* Midcontinent Independent System Operator, Inc., Northern Indiana Public Service Company LLC.

*Description:* § 205(d) Rate Filing: Midcontinent Independent System Operator, Inc. submits tariff filing per 35.13(a)(2)(iii): 2023-05-17 NIPSCO Request for Approval of CWIP Incentives to be effective 7/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5095.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1905-000.

*Applicants:* PJM Interconnection, L.L.C.

*Description:* § 205(d) Rate Filing: Original ISA, Service Agreement No. 6914; Queue No. NQ178 to be effective 4/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5096.

*Comment Date:* 5 p.m. ET 6/7/23.

*Docket Numbers:* ER23-1906-000.

*Applicants:* PJM Interconnection, L.L.C.

*Description:* § 205(d) Rate Filing: Original ISA, Service Agreement No. 6904; Queue No. AC2-157 to be effective 4/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5104.

*Comment Date:* 5 p.m. ET 6/7/23.

The filings are accessible in the Commission's eLibrary system (<https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) by querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern

time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <http://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023-10947 Filed 5-22-23; 8:45 am]

**BILLING CODE 6717-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. ER23-1862-000]

#### Roundhouse Renewable Energy II, LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of Roundhouse Renewable Energy II, LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is June 6, 2023.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling

link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (<http://www.ferc.gov>) using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or call toll-free, (866) 208-3676 or TTY, (202) 502-8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023-10951 Filed 5-22-23; 8:45 am]

**BILLING CODE 6717-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. ER23-1889-000]

#### Sweetland Wind Farm, LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of Sweetland Wind Farm, LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214

of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is June 6, 2023.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (<http://www.ferc.gov>) using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or call toll-free, (866) 208-3676 or TYY, (202) 502-8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023-10950 Filed 5-22-23; 8:45 am]

**BILLING CODE 6717-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

#### Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas & Oil Pipeline Rate and Refund Report filings:

#### Filings Instituting Proceedings

*Docket Numbers:* RP23-771-000.

*Applicants:* Equitrans, L.P.

*Description:* § 4(d) Rate Filing: Negotiated Rate Agreement—5/17/2023 to be effective 5/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5007.

*Comment Date:* 5 p.m. ET 5/30/23.

*Docket Numbers:* RP23-772-000.

*Applicants:* Equitrans, L.P.

*Description:* § 4(d) Rate Filing: Negotiated Rate Capacity Release Agreement—5/17/2023 to be effective 5/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5008.

*Comment Date:* 5 p.m. ET 5/30/23.

*Docket Numbers:* RP23-773-000.

*Applicants:* Alliance Pipeline L.P.

*Description:* § 4(d) Rate Filing: Assignment and Novation Cleanup Filing to be effective 6/17/2023.

*Filed Date:* 5/17/23.

*Accession Number:* 20230517-5077.

*Comment Date:* 5 p.m. ET 5/30/23.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

The filings are accessible in the Commission's eLibrary system (<https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) by querying the docket number.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <http://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023-10946 Filed 5-22-23; 8:45 am]

**BILLING CODE 6717-01-P**

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. AD22-14-000]

#### Commission Information Collection Activities (Proposed FERC-1002); Comment Request

**AGENCY:** Federal Energy Regulatory Commission.

**ACTION:** Notice of proposed information collection FERC-1002 (Customer Engagement Management Survey) and request for comments. This notice also terminates proposed FERC-1001 (Hotline and Helpline Survey).

**SUMMARY:** In compliance with the requirements of the Paperwork Reduction Act of 1995 (PRA), the Federal Energy Regulatory Commission (Commission or FERC) staff is soliciting public comment on proposed FERC-1002 (Customer Engagement Management Survey), which will be submitted to the Office of Management and Budget (OMB) for a review of the information collection requirements. FERC also hereby terminates proposed FERC-1001 (Hotline and Helpline Survey), consistent with the PRA.

The Commission received no comments on the 60-day notice published September 8, 2022 in the **Federal Register**.

**DATES:** Comments on the proposed collection of information are due June 22, 2023.

**ADDRESSES:** Send written comments on proposed FERC-1002 to OMB through [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain), Attention: Federal Energy Regulatory Commission Desk Officer. Please identify the OMB Control Number 1902-TBD in the subject line. Your comments should be sent within 30 days of publication of this notice in the **Federal Register**.

Please submit copies of your comments (identified by Docket No. AD22-14-000) to the Commission as noted below. Electronic filing through <http://www.ferc.gov> is preferred.

- **Electronic Filing:** Documents must be filed in acceptable native applications and print-to-PDF, but not in scanned or picture format.

- For those unable to file electronically, comments may be filed by USPS mail or by hand (including courier) delivery.

- *Mail via U.S. Postal Service Only, Addressed to:* Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

○ *Hand (including courier) Delivery to:* Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, MD 20852.

**Instructions:**

*OMB submissions* must be formatted and filed in accordance with submission guidelines at [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Using the search function under the “Currently Under Review field,” select Federal Energy Regulatory Commission; click “submit” and select “comment” to the right of the subject collection.

*FERC submissions* must be formatted and filed in accordance with submission guidelines at: <http://www.ferc.gov>. For user assistance, contact FERC Online Support by email at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or by phone at: (866) 208-3676 (toll-free).

*Docket:* Users interested in receiving automatic notification of activity in this docket may subscribe to the docket using eSubscription (<https://ferconline.ferc.gov/LogIn.aspx>). Users interested in viewing or downloading comments and issuances in this docket may do so using eLibrary (<https://elibrary.ferc.gov/eLibrary/search>).

**FOR FURTHER INFORMATION CONTACT:**

Melissa Lozano may be reached at [Melissa.Lozano@FERC.gov](mailto:Melissa.Lozano@FERC.gov) by email or telephone at (202) 502-6267.

**SUPPLEMENTARY INFORMATION:**

The Commission requested public comment in a 60-day notice <sup>1</sup> on both the proposed FERC-1001 (Hotline and Helpline Survey) and FERC-1002 (Customer Engagement Management Survey). No comments were received. Comments are no longer being solicited for FERC-1001 (Hotline and Helpline Survey) because the proposal does not constitute a “collection of information” as defined by the PRA.<sup>2</sup>

The Commission continues to seek comments on proposed FERC-1002 (Customer Engagement Management Survey), which is described more fully below.

*Title:* Proposed FERC-1002 (Customer Engagement Management Survey).<sup>3</sup>

*OMB Control No:* 1902-TBD.

*Type of Request:* Request for proposed new information collection.

**Abstract:**

The Proposed FERC-1002 is needed to conduct customer engagement activities. Customer engagement is needed to further the Commission’s goal of facilitating the public’s understanding of FERC’s work and encouraging their participation in FERC matters. The data will allow FERC to understand which areas of its work are of greater interest to the public and where additional public outreach and

educational materials or other resources are needed the most. To that end, the proposed survey, which is attached to this notice, covers customer engagement activities by FERC’s Office of Public Participation (OPP) and Office of External Affairs (OEA).<sup>4</sup> Specifically, FERC proposes to voluntarily collect contact information <sup>5</sup> and information about a participant’s subject matter areas of interest, and to keep email distributions to be used to inform interested individuals of workshops, technical conferences, certain proceedings, press releases, or newsletters.<sup>6</sup>

In this second notice for proposed FERC-1002 (Customer Engagement Management Survey), FERC proposes fewer survey questions regarding areas of interest from potential subscribers to updates and communications from OPP.

*Estimate of Annual Burden:*<sup>7</sup>

The estimated annual burden charts have been revised from the 60-day notice to exclude estimated burden for FERC-1002 that had been associated with administration of Electric Quarterly Reports,<sup>8</sup> and to reduce the estimated burden for subscribers of the survey. The following table sets forth the estimated annual burden and cost <sup>9</sup> for the FERC-1002:

**ESTIMATED ANNUAL BURDEN HOURS FOR PROPOSED FERC-1002**

Engagement/filer type	Annual number of respondents (1)	Annual number of responses per respondent (2)	Total number of responses (1) × (2) = (3)	Average burden hours per response (4)	Total annual burden hours (3) × (4) = (5)
External Affairs Subscriber .....	2,000	1	2,000	0.083	166
OPP Subscriber .....	100	1	100	0.13	13
Totals (Rounded) .....			2,100		179

**ESTIMATED ANNUAL COST FOR PROPOSED FERC-1002**

Engagement/filer type	Total number of responses (3)	Average burden hours per response (4)	Cost per hour (for wages plus benefits) (6)	Average cost per response (4) × (6) = (7)	Total annual cost (3) × (7) = (8)
External Affairs Subscriber .....	2,000	0.083	\$91	\$7.55	\$15,100.00
OPP Subscriber .....	100	0.13	91	11.83	1,183.00
Totals (Rounded) .....	2,100				16,283.00

<sup>1</sup> 87 FR 54998, September 8, 2022.

<sup>2</sup> 44 U.S.C. 3502(3)(A)(i) (providing that “collection of information” constitutes answers to identical questions posed to, or identical reporting or recordkeeping requirements imposed on, ten or more persons, other than agencies, instrumentalities, or employees of the United States).

<sup>3</sup> The proposed survey will not be published in the **Federal Register** but will be available as part of this notice in the Commission’s eLibrary system.

<sup>4</sup> The original notice also covered work by Electric Quarterly Report administrators, which is no longer being proposed in this notice.

<sup>5</sup> We will safeguard the information provided in accordance with the Privacy Act of 1974, as amended (5 U.S.C. 552a). FERC-1002 is authorized by 18 CFR 388.104 and is in accordance with SORN FERC-62. SORN FERC-62 is being modified concurrently with this notice and the related PRA submittal to the Office of Management and Budget. If needed, the Privacy section of the Attachment will be updated upon approval by OMB.

<sup>6</sup> Proposed FERC-1002 covers the following areas of outreach for customer engagement from OPP: <https://www.ferc.gov/office-of-public-participation-subscribe> and from OEA: <https://www.ferc.gov/ferc-insight-newsletter>.

<sup>7</sup> Burden is defined as the total time, effort, or financial resources expended by persons to

generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, see 5 CFR 1320.3.

<sup>8</sup> Industry burden associated with the Electric Quarterly Report is covered under FERC-920 (OMB Control No. 1902-0255).

<sup>9</sup> Commission staff believes the FERC average wages plus benefits are a reasonable approximation of the cost for industry and public respondents. Therefore we are using the 2022 FERC average cost for wages plus benefits (\$91.00 (rounded) per hour or \$188,922 (rounded) per year).



TOTAL FOR PROPOSED FERC-1002

	Estimated burden (hrs.)	Estimated cost (\$)
Estimated Annual Total for Proposed FERC-1002 .....	179	\$16,283.00

*Comments:* Comments are invited on: (1) whether the collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's estimates of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collection; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

The attachment will not be published in the **Federal Register** but will be available as part of this notice in the Commission's eLibrary system.

Dated: May 17, 2023.

**Kimberly D. Bose,**  
*Secretary.*

**Attachment**

FERC-1002  
OMB Control No. 1902-TBD  
OMB Expiration Date: nn/nn/nnnn

*Proposed FERC-1002, Customer Engagement Management Survey*

FERC website currently includes subscribe forms or subscribe buttons in different locations to collect contact information about participants interest in obtaining FERC communications from the Office of External Affairs (such as FERC Insider Newsletter) and from the Office of Public Participation. These existing subscribe forms or buttons will be modified and in some cases expanded to include questions intended to obtain more granular information about a participant's subject matter interests in order for the Commission to provide more targeted outreach.

The instructions and questions in this collection follow.

*Instructions*

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*Instructions*

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Type of Stakeholder (select all that apply)

- Consumer Advocate
- Member of Tribal Group
- Tribal Government Representative
- Academic
- Environmental/Energy Justice Community
- Grassroots Organization
- Governmental Organization
- Landowner
- Company Representative
- Individual
- Other (*open answer*)

Geographies (select all that apply)

- RTO/ISO (with dropdown)
- State (with dropdown including "all" as an option and each state)
- Tribal Nation (*open answer*)
- Other

Industry (select all areas of interest)

- Electric Markets (*includes technologies and products, RTO/ISO matters, resource adequacy/capacity markets, distributed energy resources, renewable generation resources and/or storage*)
- Transmission
- Natural Gas/LNG
- Oil
- Hydropower

Other (*Please type in FERC related subjects that are of interest to you or what you would like to receive information about.*)

*Instructions*

*Where to Send Comments on Public Reporting Burden.* The public reporting burden for the FERC-1002 collection of information is estimated to average 0.09 hours per response (rounded), including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data-needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any aspect of the collection of information, including suggestions for reducing burden, to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426 (Attention: Information Clearance Officer); and to the Office of Information and Regulatory Affairs, Office of Management and Budget, through [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain), and indicate the FERC-1002 and OMB Control No. (1902-TBD). No person shall be subject to any penalty if any collection of information does not display a valid OMB control number (44 U.S.C. 3512 (a)).

*Privacy*

When engaging with FERC's program offices, such as the Office of Public Participation (OPP) and Office of External Affairs (OEA), FERC may ask you to provide Personally Identifiable Information (PII), such as your name, email address, affiliation and personal or mobile phone number, for the purpose of ongoing engagement with you. If you choose to provide this PII by registering for a FERC-sponsored workshop, completing a program specific webform, or requesting to be informed regarding a specific subject matter of interest, FERC will use that information to help provide you with information or service you have requested. Providing the PII is voluntary. This PII, if you choose to provide it, may be shared with other federal and state regulators as authorized pursuant to the FERC's published Privacy Act System of Records (SORN) FERC-62, *Public Information Request*. FERC will



safeguard the information you provide to us in accordance with the Privacy Act of 1974, as amended (5 U.S.C. 552a). This collection of information is authorized by 18 CFR 388.104 and is in accordance with SORN FERC–62, Public Information Request, 79 FR 17534 published March 28, 2014 at <https://www.federalregister.gov/documents/2014/03/28/2014-06993/privacy-act-of-1974-notice-of-new-or-altered-systems-of-records> or here: <https://www.govinfo.gov/content/pkg/FR-2014-03-28/pdf/2014-06993.pdf>. SORN FERC–62 is currently being modified and the amended notice will be published in the **Federal Register** as soon as all required concurrences are obtained.

[FR Doc. 2023–10937 Filed 5–22–23; 8:45 am]

BILLING CODE 6717–01–P

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. ER23–1894–000]

#### **Pome BESS LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization**

This is a supplemental notice in the above-referenced proceeding of Pome BESS LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is June 6, 2023.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the

eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (<http://www.ferc.gov>) using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023–10949 Filed 5–22–23; 8:45 am]

BILLING CODE 6717–01–P

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket No. ER23–1895–000]

#### **Solar Partners XI, LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization**

This is a supplemental notice in the above-referenced proceeding of Solar Partners XI, LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice

and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is June 6, 2023.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (<http://www.ferc.gov>) using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Dated: May 17, 2023.

**Debbie-Anne A. Reese,**

*Deputy Secretary.*

[FR Doc. 2023–10948 Filed 5–22–23; 8:45 am]

BILLING CODE 6717–01–P

**ENVIRONMENTAL PROTECTION AGENCY**

[FRL-10890-01-OAR]

**California State Nonroad Engine Pollution Control Standards; Small Off-Road Engines; Request for Authorization; Opportunity for Public Hearing and Comment****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Notice.

**SUMMARY:** The California Air Resources Board (CARB) has notified EPA that it has adopted two sets of amendments to its Small Off-Road Engine regulation (SORE Amendments). By letter dated December 20, 2022, CARB asked that EPA authorize these amendments pursuant to section 209(e) of the Clean Air Act (CAA). This notice announces that EPA will hold a public hearing to consider California's authorization request and that EPA is now accepting written comment on the requests.

**DATES:** *Comments:* Written comments must be received on or before July 28, 2023.

*Public Hearing:* EPA will hold a public hearing on June 27, 2023. See **SUPPLEMENTARY INFORMATION** for further information on the virtual public hearing.

**ADDRESSES:** You may submit your comments, identified by Docket ID No. EPA-HQ-OAR-2023-0151 by any of the following methods:

- *Federal eRulemaking Portal:* <https://www.regulations.gov> (our preferred method). Follow the online instructions for submitting comments.
- *Email:* [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov).
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, OAR, Docket EPA-HQ-OAR-2023-0151, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

- *Hand Delivery or Courier (by scheduled appointment only):* EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operations are 8:30 a.m.–4:30 p.m., Monday–Friday (except federal holidays). Instructions: All submissions received must include the Docket ID No. for this action. Comments received may be posted without change to <https://www.regulations.gov>, including any personal information provided. For detailed instructions on sending comments and additional information on the process for this action, see the “Public Participation” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

**FOR FURTHER INFORMATION CONTACT:**

David Dickinson, Office of Transportation and Air Quality, Transportation and Climate Division, Environmental Protection Agency; Telephone number: (202) 343-9256; Email address: [dickinson.david@epa.gov](mailto:dickinson.david@epa.gov); or Kayla Steinberg, Office of Transportation and Air Quality, Transportation and Climate Division (TCD), Environmental Protection Agency; Telephone number (202) 564-7658; Email address: [steinberg.kayla@epa.gov](mailto:steinberg.kayla@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*Public Participation Virtual Public Hearing:* The EPA will hold a virtual hearing on June 27, 2023. Those wishing to testify or to monitor the virtual hearing should register at: [https://usepa.zoomgov.com/webinar/register/WN\\_LsXS6oB1SZKar1OFjY1R7Q](https://usepa.zoomgov.com/webinar/register/WN_LsXS6oB1SZKar1OFjY1R7Q). Those presenting oral testimony will be limited to a 3-minute time slot. The Agency will not be issuing any subsequent **Federal Register** notices and will instead provide any additional details for the hearing at <https://www.epa.gov/regulations-emissions-vehicles-and-engines/virtual-public-hearing-small-road-engine-sore>. The link to join the virtual public hearing is at <https://usepa.zoomgov.com/j/1606756297>. EPA recommends submitting the text of your oral testimony as written comments to the docket. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral testimony and supporting information presented at the public hearing.

*A. Public Participation Written Comments:* Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2023-0151 at <https://www.regulations.gov> (our preferred method), or the other methods identified in the **ADDRESSES** section of this document. Once submitted, comments cannot be edited or withdrawn from the docket. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (including such

content located on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI, PBI, or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epadockets>. Documents to which the EPA refers in this action are available online at <https://www.regulations.gov/> in the docket for this action (Docket EPA-HQ-OAR-2023-0151).

EPA's Office of Transportation and Air Quality also maintains a web page that contains general information on its review of California waiver and authorization requests. Included on that page are links to prior waiver and authorization **Federal Register** notices. This page will also include updates regarding this authorization proceeding. The page can be accessed at <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations>.

**I. California's Small Off-Road Engine Regulation, Prior Authorization, and New Request**

CARB first adopted emission standards and associated test procedures for small off-road engines (SORE) in 1990.<sup>1</sup> CARB subsequently amended the SORE regulations a number of times and EPA granted authorizations for CARB to enforce the SORE regulations and subsequent amendments.<sup>2</sup>

On December 20, 2022, CARB submitted a new authorization request to EPA for its amendments to the SORE regulation adopted in 2016 (2016 SORE Amendments) and in 2021 (2021 SORE Amendments).

CARB notes that its 2016 SORE Amendments include improvements to evaporative emissions certification

<sup>1</sup> SOREs are defined by CARB as off-road spark-ignition engines rated at or below 19 kilowatts (25.5 horsepower) that are not used to propel a licensed on-road motor vehicle, an off-road motorcycle, an all-terrain vehicle, a marine vessel, a snowmobile, a model airplane, a model car, or a model boat. SOREs are predominantly used in lawn and garden equipment such as lawn mowers, string trimmers, and leaf blowers, as well as in other small off-road equipment such as portable generators, pressure washers, and air compressors. The vast majority of SOREs are fueled by gasoline, but some are powered by compressed natural gas (CNG), propane, liquefied petroleum gas (LPG), or liquefied natural gas (LNG). Small off-road equipment powered by SORE are known as SORE equipment. See CARB Authorization Request, EPA-HQ-OAR-2023-0151 at 3.

<sup>2</sup> 60 FR 37440 (July 20, 1995); 65 FR 69763 (November 20, 2000); 68 FR 65702 (November 21, 2003); 71 FR 75536 (December 15, 2006); 75 FR 8056 (February 23, 2010); 80 FR 26041 (May 6, 2015); 80 FR 76971 (December 11, 2015).

procedures, revise the compliance testing procedure, update the evaporative emissions certification test fuel to represent commercially available gasoline, and align aspects of the SORE requirements with the corresponding federal requirements, while retaining elements of the evaporative emission standards previously adopted by CARB, which are more stringent than federal requirements. CARB also notes the 2016 Amendments are designed to increase SORE equipment compliance with the diurnal emission standards, will require evaporative emissions certification test fuel to be formulated to reflect motor vehicle fuel currently dispensed at California gasoline stations, will enable SORE manufacturers to obtain both CARB and EPA certification for fuel tanks based on a common set of test results, and will enable CARB to more readily identify and remedy violations of the evaporative emissions standards. The 2016 Amendments do not increase the stringency of the preexisting SORE evaporative emission standards, but will ensure that manufacturers will more fully comply with those standards.<sup>3</sup>

CARB notes that its 2021 SORE Amendments primarily establish exhaust and evaporative emission standards and associated test procedures for 2024 and subsequent model engines and equipment that are significantly more stringent than preexisting exhaust and evaporative emission standards and associated test procedures. The 2021 Amendments establish SORE emission standards in two phases. First, the exhaust emission standards for most 2024 and subsequent model year (MY) SOREs is zero (0.00 grams per kilowatt-hour) for hydrocarbons and oxides of nitrogen. Under the 2021 SORE Amendments, carbon monoxide (CO) emission standards for MY 2024 and later engines are more stringent than the existing emission standards for some displacement categories, but they are not zero. The evaporative emission standards for most 2024 and subsequent MY SOREs is zero (0.00 grams per test). The evaporative emission standards include “hot soak” emissions (representing emissions that occur when placing a hot engine in storage after use on a hot summer day) to better evaluate emissions from real world use of SORE equipment. The above-mentioned emission standards apply for all categories of SORE except pressure washer engines with displacements greater than or equal to 225 cubic centimeters (cc) and portable generator engines. The emission standards for the

latter category of engines are more stringent than the preexisting emission standards starting in MY 2024 but are not zero.

The second phase of the emissions standards will be implemented beginning in the 2028 MY, when the exhaust and evaporative emission standards for engines used in pressure washer with displacements greater than or equal to 225 cc and portable generators will be aligned with the zero-emission standards for other categories of SOREs.<sup>4</sup>

## II. Clean Air Act Nonroad Engine and Vehicle Authorization Criteria

Section 209(e)(1) of the CAA prohibits states and local governments from adopting or attempting to enforce any standard or other requirement relating to the control of emissions from new nonroad vehicles or engines. The Act also preempts states from adopting and enforcing standards and other requirements related to the control of emissions from non-new nonroad engines or vehicles. Section 209(e)(2), however, requires the Administrator, after notice and opportunity for public hearing, to authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. However, EPA shall not grant such authorization if it finds that (1) the determination of California is arbitrary and capricious; (2) California does not need such California standards to meet compelling and extraordinary conditions; or (3) California standards and accompanying enforcement procedures are not consistent with [CAA section 209].<sup>5</sup> On July 20, 1994, EPA promulgated a rule that sets forth, among other things, regulations providing the criteria, as found in section 209(e)(2)(A) of the CAA, that EPA must consider before granting any California authorization request for new nonroad engine or vehicle emission standards.<sup>6</sup> EPA revised these regulations in 1997.<sup>7</sup> As stated in the preamble to the 1994 rule, EPA has historically interpreted the section 209(e)(2)(iii) “consistency” inquiry to require, at minimum, that California standards and enforcement procedures be consistent with section 209(a),

section 209(e)(1), and section 209(b)(1)(C) (as EPA has interpreted that subsection in the context of section 209(b) motor vehicle waivers).<sup>8</sup>

In order to be consistent with section 209(a), California’s nonroad standards and enforcement procedures must not apply to new motor vehicles or new motor vehicle engines. To be consistent with section 209(e)(1), California’s nonroad standards and enforcement procedures must not attempt to regulate engine categories that are permanently preempted from state regulation. To determine consistency with section 209(b)(1)(C), EPA typically reviews nonroad authorization requests under the same “consistency” criteria that are applied to motor vehicle waiver requests. Pursuant to section 209(b)(1)(C), the Administrator shall not grant California a motor vehicle waiver if he finds that California “standards and accompanying enforcement procedures are not consistent with section 202(a)” of the Act. Previous decisions granting waivers and authorizations have noted that state standards and enforcement procedures are inconsistent with section 202(a) if: (1) there is inadequate lead time to permit the development of the necessary technology giving appropriate consideration to the cost of compliance within that time, or (2) the federal and state testing procedures impose inconsistent certification requirements.<sup>9</sup>

In addition, in considering requests from California to authorize the enforcement of standards or other requirements relating to the control of emissions from new nonroad spark-ignition engines smaller than 50 horsepower, the Administrator is required to give appropriate consideration to safety factors (including the increased risk of burn or fire) associated with compliance with the California standard.<sup>10</sup>

## III. EPA’s Request for Comments

We request comment on whether California’s 2016 SORE Amendments and the 2021 SORE Amendments meet the criteria for a full authorization. Specifically, we request comment on: (a) whether CARB’s determination that its standards, in the aggregate, are at least as protective of public health and welfare as applicable federal standards is arbitrary and capricious, (b) whether California needs such standards to meet compelling and extraordinary conditions, and (c) whether California’s standards and accompanying

<sup>4</sup> CARB Authorization Request at 14–20.

<sup>5</sup> 42 U.S.C. 7543(e)(2)(A).

<sup>6</sup> 59 FR 36969 (July 20, 1994).

<sup>7</sup> 62 FR 67733 (December 30, 1997). The applicable regulations are now in 40 CFR part 1074, subpart B, section 1074.105.

<sup>8</sup> 59 FR 36969 (July 20, 1994).

<sup>9</sup> 78 FR 58090, 58092 (September 20, 2013).

<sup>10</sup> 40 CFR 1074.105(c).

<sup>3</sup> CARB Authorization Request at 7–14.

enforcement procedures are consistent with section 209 of the Act. We also request comment on any safety factors EPA should consider regarding the 2016 and 2021 SORE Amendments.

**Sarah Dunham,**

*Director, Office of Transportation and Air Quality, Office of Air and Radiation.*

[FR Doc. 2023–10923 Filed 5–22–23; 8:45 am]

BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2023–0067; FRL–10578–04–OCSPP]

### Pesticide Product Registration; Receipt of Applications for New Uses (April 2023)

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** EPA has received applications to register new uses for pesticide products containing currently registered active ingredients. Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA is hereby providing notice of receipt and opportunity to comment on these applications.

**DATES:** Comments must be received on or before June 22, 2023.

**ADDRESSES:** Submit your comments, identified by docket identification (ID) number EPA–HQ–OPP–2023–0067, through the *Federal eRulemaking Portal* at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Additional instructions on commenting and visiting the docket, along with more information about dockets generally, is available at <https://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** Charles Smith, Biopesticides and Pollution Prevention Division (BPPD) (7511M), main telephone number: (202) 566–1400, email address: [BPPDFRNotices@epa.gov](mailto:BPPDFRNotices@epa.gov). The mailing address for each contact person is Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001. As part of the mailing address, include the contact person's name, division, and mail code. The division to contact is listed at the end of each application summary.

**SUPPLEMENTARY INFORMATION:**

## I. General Information

### A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).

### B. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through [regulations.gov](https://www.regulations.gov) or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When preparing and submitting your comments, see the commenting tips at <https://www.epa.gov/dockets/commenting-epa-dockets>.

## II. Registration Applications

EPA has received applications to register new uses for pesticide products containing currently registered active ingredients. Pursuant to the provisions of FIFRA section 3(c)(4) (7 U.S.C. 136a(c)(4)), EPA is hereby providing notice of receipt and opportunity to comment on these applications. Notice of receipt of these applications does not imply a decision by the Agency on these applications.

Notice of Receipt—New Uses

*EPA Registration Number:* 71297–5.  
*Docket ID number:* EPA–HQ–OPP–2023–0248. *Applicant:* AgroFresh Inc., 510 Walnut Street, Suite 1350, Philadelphia, PA 19106. *Active ingredient:* 1–MCP. *Product type:* Plant

growth regulator. *Proposed use:* Residential. *Contact:* BPPD.

*Authority:* 7 U.S.C. 136 *et seq.*

Dated: May 17, 2023.

**Delores Barber,**

*Director, Information Technology and Resources Management Division, Office of Program Support.*

[FR Doc. 2023–10879 Filed 5–22–23; 8:45 am]

BILLING CODE 6560–50–P

## FEDERAL COMMUNICATIONS COMMISSION

[FR ID 141932]

### Federal Advisory Committee Act; Communications Security, Reliability, and Interoperability Council

**AGENCY:** Federal Communications Commission (FCC).

**ACTION:** Notice of public meeting.

**SUMMARY:** In accordance with the Federal Advisory Committee Act, this notice advises interested persons that the Federal Communications Commission's (Commission) Communications Security, Reliability, and Interoperability Council (CSRIC) VIII will hold its eighth and final meeting.

**DATES:** June 26, 2023 at 1 p.m. EDT.

**ADDRESSES:** The Meeting will be held at 45 L Street NE, Washington, DC, and via conference call. The meeting is open to the public and is available via WebEx at <https://www.fcc.gov/live> and on the FCC's YouTube channel.

**FOR FURTHER INFORMATION CONTACT:** Suzon Cameron, Designated Federal Officer, Federal Communications Commission, Public Safety and Homeland Security Bureau, (202) 418–1916 or email: [suzon.cameron@fcc.gov](mailto:suzon.cameron@fcc.gov), or Kurian Jacob, Deputy Designated Federal Officer, Federal Communications Commission, Public Safety and Homeland Security Bureau, (202) 418–2040 or email: [kurian.jacob@fcc.gov](mailto:kurian.jacob@fcc.gov).

**SUPPLEMENTARY INFORMATION:** The meeting will be held on June 26, 2023, at 1p.m. EDT, in the Commission Meeting Room of the Federal Communications Commission, 45 L Street NE, Washington, DC. While the CSRIC VIII meeting is open to the public, the FCC headquarters building is not open access, and all guests must check in with and be screened by FCC security at the main entrance on L Street. Attendees at the meeting will not be required to have an appointment but must otherwise comply with protocols outlined at: <https://www.fcc.gov/visit>.

The CSRIC is a Federal Advisory Committee that will provide recommendations to the Commission to improve the security, reliability, and interoperability of communications systems. On June 30, 2021, the Commission, pursuant to the Federal Advisory Committee Act, renewed the charter for CSRIC VII for a period of two years through June 29, 2023. The meeting on June 26, 2023, will be the eighth and final meeting of CSRIC VIII under the current charter.

The Commission will provide audio and/or video coverage of the meeting over the internet from the FCC's web page at <https://www.fcc.gov/live> and on the FCC's YouTube channel. The public may submit written comments before the meeting to Suzon Cameron, CSRIC VIII Designated Federal Officer, by email to [CSRIC@fcc.gov](mailto:CSRIC@fcc.gov).

Open captioning will be provided for this event. Other reasonable accommodations for people with disabilities are available upon request. Requests for such accommodations should be submitted via email to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or by calling the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (tty). Such requests should include a detailed description of the accommodation needed. In addition, please include a way the Commission can contact you if it needs more information. Please allow at least five days' advance notice; last-minute requests will be accepted but may be impossible to fill.

Federal Communications Commission.

**Marlene Dortch,**

*Secretary, Office of the Secretary.*

[FR Doc. 2023-10919 Filed 5-22-23; 8:45 am]

**BILLING CODE 6712-01-P**

## FEDERAL MARITIME COMMISSION

### Notice of Agreements Filed

The Commission hereby gives notice of filing of the following agreements under the Shipping Act of 1984. Interested parties may submit comments, relevant information, or documents regarding the agreements to the Secretary by email at [Secretary@fmc.gov](mailto:Secretary@fmc.gov), or by mail, Federal Maritime Commission, 800 North Capitol Street, Washington, DC 20573. Comments will be most helpful to the Commission if received within 12 days of the date this notice appears in the **Federal Register**, and the Commission requests that comments be submitted within 7 days on agreements that request expedited review. Copies of agreements are

available through the Commission's website ([www.fmc.gov](http://www.fmc.gov)) or by contacting the Office of Agreements at (202) 523-5793 or [tradeanalysis@fmc.gov](mailto:tradeanalysis@fmc.gov).

*Agreement No.:* 011290-044.

*Agreement Name:* International Vessel Operators Dangerous Goods Association Agreement.

*Parties:* Bermuda Container Line Ltd.; Crowley Caribbean Services LLC, Crowley Latin American Services, LLC (dba a single party); COSCO Shipping Lines Company, Ltd.; Evergreen Marine Corp (Taiwan) Ltd.; Hapag-Lloyd AG; HMM Company Limited; Independent Container Line Ltd.; Klinge Corporation (associate party); Maersk A/S; Matson Navigation Company; National Cargo Bureau (associate party); Ocean Network Express Pte. Ltd.; Orient Overseas Container Line Limited; Seaboard Marine Ltd.; Tampa Bay International Terminals, Inc. (associate party); Tropical Shipping & Construction Company Limited, LLC; Wallenius Wilhelmsen Ocean AS; Wan Hai Lines Ltd.; Yang Ming Marine Transport Corporation; and ZIM Integrated Shipping Services Ltd.

*Filing Party:* Wayne Rohde, Cozen O'Connor.

*Synopsis:* The amendment adds ZIM Integrated Shipping Services, Ltd. as a party to the Agreement and corrects the names and/or addresses of several of the other parties.

*Proposed Effective Date:* 6/30/2023.

*Location:* <https://www2.fmc.gov/FMC.Agreements.Web/Public/AgreementHistory/1638>.

*Agreement No.:* 201349-003.

*Agreement Name:* World Shipping Council Agreement.

*Parties:* COSCO Shipping Lines Co., Ltd., Orient Overseas Container Line Ltd., and OOCL (Europe) Limited (acting as a single party); CMA CGM S.A., APL Co. Pte. Ltd., American President Lines, LLC and ANL Singapore Pte Ltd. (acting as a single party); Crowley Caribbean Services, LLC and Crowley Latin America Services, LLC (acting as a single party); Evergreen Marine Corporation (Taiwan) Ltd.; Hapag-Lloyd AG; HMM Company Limited; Independent Container Line, Ltd.; Kawasaki Kisen Kaisha Ltd., Maersk A/S and Hamburg Sud (acting as a single party); Matson Navigation Company, Inc.; MSC Mediterranean Shipping Company SA; Mitsui O.S.K. Lines Ltd.; Nippon Yusen Kaisha; Ocean Network Express Pte. Ltd.; Swire Shipping, Pte. Ltd.; Wallenius Wilhelmsen Ocean AS; Wan Hai Lines Ltd. and Wan Hai Lines (Singapore) Pte Ltd. (acting as a single party); Yang Ming Marine Transport Corp.; and Zim Integrated Shipping Services, Ltd.

*Filing Party:* Robert Magovern, Cozen O'Connor.

*Synopsis:* The Amendment authorizes the WSC members to (i) discuss and agree upon voluntary best practices relating to minimum safety standards for screening and inspecting dangerous cargo, (ii) establish and administer a common digital solutions tool for the cargo screening process (including through a third-party vendor), and (iii) create and maintain databases of shippers and cargo inspection companies that demonstrate conformance with minimum safety standards.

*Proposed Effective Date:* 7/1/2023.

*Location:* <https://www2.fmc.gov/FMC.Agreements.Web/Public/AgreementHistory/34503>.

Dated: May 18, 2023.

**JoAnne O'Bryant,**

*Program Analyst.*

[FR Doc. 2023-10977 Filed 5-22-23; 8:45 am]

**BILLING CODE 6730-02-P**

## FEDERAL RESERVE SYSTEM

### Notice of Proposals To Engage in or To Acquire Companies Engaged in Permissible Nonbanking Activities

The companies listed in this notice have given notice under section 4 of the Bank Holding Company Act (12 U.S.C. 1843) (BHC Act) and Regulation Y, (12 CFR part 225) to engage de novo, or to acquire or control voting securities or assets of a company, including the companies listed below, that engages either directly or through a subsidiary or other company, in a nonbanking activity that is listed in § 225.28 of Regulation Y (12 CFR 225.28) or that the Board has determined by Order to be closely related to banking and permissible for bank holding companies. Unless otherwise noted, these activities will be conducted throughout the United States.

The public portions of the applications listed below, as well as other related filings required by the Board, if any, are available for immediate inspection at the Federal Reserve Bank(s) indicated below and at the offices of the Board of Governors. This information may also be obtained on an expedited basis, upon request, by contacting the appropriate Federal Reserve Bank and from the Board's Freedom of Information Office at <https://www.federalreserve.gov/foia/request.htm>. Interested persons may express their views in writing on the question whether the proposal complies with the standards of section 4 of the BHC Act.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors, Ann E. Misback, Secretary of the Board, 20th Street and Constitution Avenue NW, Washington DC 20551-0001, not later than June 7, 2023.

*A. Federal Reserve Bank of Chicago* (Colette A. Fried, Assistant Vice President) 230 South LaSalle Street, Chicago, Illinois 60690-1414:

1. *Mechanicsville Bancshares, Inc., Mechanicsville, Iowa*; to continue to engage in making and servicing loans pursuant to section 225.28(b)(1) of Regulation Y.

Board of Governors of the Federal Reserve System.

**Michele Taylor Fennell,**

*Deputy Associate Secretary of the Board.*

[FR Doc. 2023-10968 Filed 5-22-23; 8:45 am]

**BILLING CODE P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Centers for Disease Control and Prevention

[30Day-23-0920]

#### Agency Forms Undergoing Paperwork Reduction Act Review

In accordance with the Paperwork Reduction Act of 1995, the Centers for Disease Control and Prevention (CDC) has submitted the information collection request titled “Data Collection Through Web Based Surveys for Evaluating Act Against AIDS Social Marketing Campaign Phases Targeting Consumers” to the Office of Management and Budget (OMB) for review and approval. CDC previously published a “Proposed Data Collection Submitted for Public Comment and Recommendations” notice on February 17, 2023 to obtain comments from the public and affected agencies. CDC received two comments related to the previous notice. This notice serves to allow an additional 30 days for public and affected agency comments.

CDC will accept all comments for this proposed information collection project. The Office of Management and Budget is particularly interested in comments that:

(a) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(b) Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(c) Enhance the quality, utility, and clarity of the information to be collected;

(d) Minimize the burden of the collection of information on those who are to respond, including, through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses; and

(e) Assess information collection costs.

To request additional information on the proposed project or to obtain a copy of the information collection plan and instruments, call (404) 639-7570. Comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting “Currently under 30-day Review—Open for Public Comments” or by using the search function. Direct written comments and/or suggestions regarding the items contained in this notice to the Attention: CDC Desk Officer, Office of Management and Budget, 725 17th Street NW, Washington, DC 20503 or by fax to (202) 395-5806. Provide written comments within 30 days of notice publication.

#### Proposed Project

Data Collection Through Web Based Surveys for Evaluating Act Against AIDS Social Marketing Campaign Phases Targeting Consumers (OMB Control No. 0920-0920, Exp. 05/31/2023)—Extension—National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention (NCHHSTP), Centers for Disease Control and Prevention (CDC).

#### Background and Brief Description

In response to the continued HIV epidemic in our country, in 2009 CDC launched the Let’s Stop HIV Together campaign (formerly known as Act Against AIDS), a multifaceted communication campaign to reduce HIV incidence in the United States. CDC has released the campaign in phases, with some of the phases running concurrently. Each phase of the campaign uses mass media and direct-to-consumer channels to deliver messages. Some campaigns provide basic education and increase awareness

of HIV/AIDS among the general public while others emphasize HIV prevention and testing among specific subgroups or communities at greatest risk of infection. CDC also develops new messages to address changes in prevention science and subpopulations affected by HIV.

CDC has used a generic clearance (OMB No. 0920-0920) to facilitate OMB approval of information collection needed to assess the effectiveness of social marketing messages aimed at increasing HIV/AIDS awareness, increasing prevention behaviors, and improving HIV testing rates among consumers. Specifically, in 2022 CDC received OMB approval to collect information for evaluating the acceptability and potential effectiveness of proposed concepts, messages, and taglines for a component of the Let’s Stop HIV Together campaign (“Development of Messages for the Let’s Stop HIV Together National Campaign”). This component emphasizes proven, effective prevention strategies, such as pre-exposure prophylaxis (PrEP) and treatment as prevention (TasP). Information collection has been initiated but has not been completed.

CDC is requesting OMB approval to extend the generic clearance and to complete information collection that supports campaign development and evaluation. Respondents will be recruited through national opt-in email lists, the internet, and external partnerships with community-based and membership organizations that work with or represent individuals from targeted populations (e.g., National Urban League, the National Medical Association).

To identify and reach target audiences, screening questions for up to 30,880 potential respondents may address one or more of the following items: Race/ethnicity, sexual behavior, sexual orientation, gender identity, HIV testing history, HIV status, and injection drug use. In addition, up to 5,445 respondents will be asked to complete a self-administered survey at home on a personal computer. Each targeted campaign survey will have a core set of items asked in all rounds, as well as a module of questions relating to specific Let’s Stop HIV Together phases and activities.

OMB approval is requested for three years and there is no cost to the respondents other than their time. The total estimated annualized burden is 3,751 hours.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hours)
Individuals (male and female) aged 18 years and older .....	Study Screener .....	30,880	1	2/60
	Survey Module .....	5,445	1	30/60

**Jeffrey M. Zirger,**

*Lead, Information Collection Review Office, Office of Public Health Ethics and Regulations, Office of Science, Centers for Disease Control and Prevention.*

[FR Doc. 2023–10957 Filed 5–22–23; 8:45 am]

**BILLING CODE 4163–18–P**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Food and Drug Administration**

[Docket No. FDA–2023–N–0687]

**Abbott Laboratories Pharmaceutical Products Division; Withdrawal of Approval of New Drug Applications for CYLERT (Pemoline) Tablets, 18.75 Milligrams, 37.5 Milligrams, and 75 Milligrams, and CYLERT (Pemoline) Chewable Tablets, 37.5 Milligrams**

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA or Agency) is withdrawing approval of new drug application (NDA) 016832 for CYLERT (pemoline) tablets, 18.75 milligrams (mg), 37.5 mg, and 75 mg, as well as NDA 017703 for CYLERT (pemoline) chewable tablets, 37.5 mg, held by Abbott Laboratories Pharmaceutical Products Division, c/o G&L Scientific, 25 Independence Blvd., 4th Floor, Warren, NJ 07059 (Abbott). Abbott requested that approval of these applications be withdrawn and has waived its opportunity for a hearing.

**DATES:** Approval is withdrawn as of May 23, 2023.

**FOR FURTHER INFORMATION CONTACT:** Kimberly Lehrfeld, Office of Regulatory Policy, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 6226, Silver Spring, MD 20993, 301–796–3137, *Kimberly.Lehrfeld@fda.hhs.gov*.

**SUPPLEMENTARY INFORMATION:** On January 27, 1975, FDA approved NDA 016832 for CYLERT (pemoline) tablets, 18.75 mg, 37.5 mg, and 75 mg, for use in the treatment of Attention-Deficit/Hyperactivity Disorder (ADHD). On

January 30, 1976, the Agency approved NDA 017703 for CYLERT (pemoline) chewable tablets, 37.5 mg, for use in the treatment of ADHD. On October 24, 2005, FDA issued a Postmarket Drug Safety Information for Patients and Providers communication entitled “Information for Healthcare Professionals: Pemoline Tablets and Chewable Tablets (Marketed as CYLERT)” which concluded the overall liver toxicity risk of CYLERT (pemoline) (NDAs 016832 and 017703) and generic pemoline products outweighed the benefits of these products (<https://wayback.archive-it.org/7993/20171114124349/https://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm126461.htm>).

All holders of approved applications for pemoline products, including Abbott, ceased marketing the products at that time. On April 12, 2021, FDA contacted Abbott and requested the company submit a request for FDA to withdraw approval of NDAs 016832 and 017703 for CYLERT tablets and CYLERT chewable tablets, respectively, pursuant to § 314.150(d) (21 CFR 314.150(d)) due to the risk of liver toxicity. On September 2, 2021, Abbott requested that FDA withdraw approval of CYLERT (pemoline) tablets and CYLERT (pemoline) chewable tablets, NDAs 016832 and 017703, respectively, under § 314.150(d) and waived its opportunity for a hearing.

For the reasons discussed above, and in accordance with the applicant’s request, approval of NDAs 016832 and 017703 for CYLERT (pemoline) tablets, 18.75 mg, 37.5 mg, and 75 mg, and CYLERT (pemoline) chewable tablets, 37.5 mg, respectively, and all amendments and supplements thereto, is withdrawn under § 314.150(d). Distribution of CYLERT (pemoline) tablets, 18.75 mg, 37.5 mg, and 75 mg, and CYLERT (pemoline) chewable tablets, 37.5 mg, into interstate commerce without an approved application is illegal and subject to regulatory action (see sections 505(a) and 301(d) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 355(a) and 331(d))).

Dated: May 17, 2023.

**Lauren K. Roth,**

*Associate Commissioner for Policy.*

[FR Doc. 2023–10924 Filed 5–22–23; 8:45 am]

**BILLING CODE 4164–01–P**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Health Resources and Services Administration**

**Agency Information Collection Activities: Submission to OMB for Review and Approval; Public Comment Request; Nurse Faculty Loan Program—Program Specific Data Form, Annual Performance Report Financial Data Form and NFLP Due Diligence Form; OMB No. 0915–0314–Revision**

**AGENCY:** Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act of 1995, HRSA submitted an Information Collection Request (ICR) to the Office of Management and Budget (OMB) for review and approval. Comments submitted during the first public review of this ICR will be provided to OMB. OMB will accept further comments from the public during the review and approval period. OMB may act on HRSA’s ICR only after the 30-day comment period for this notice has closed.

**DATES:** Comments on this ICR should be received no later than June 22, 2023.

**ADDRESSES:** Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting “Currently under Review—Open for Public Comments” or by using the search function.

**FOR FURTHER INFORMATION CONTACT:** To request a copy of the clearance requests submitted to OMB for review, email Samantha Miller, the HRSA Information



Collection Clearance Officer, at [paperwork@hrsa.gov](mailto:paperwork@hrsa.gov) or call (301) 443-1984.

**SUPPLEMENTARY INFORMATION:**

*Information Collection Request Title:* Nurse Faculty Loan Program—Program Specific Data Form, Annual Performance Report Financial Data Form and NFLP Due Diligence Form OMB No. 0915-0314—Revision

*Abstract:* This clearance request is for approval of the Nurse Faculty Loan Program (NFLP)—Program Specific Data Form, NFLP—Annual Performance Report (APR) Financial Data Form, and the NFLP Due Diligence Form. The Program Specific Data Form and the NFLP—APR Financial Data Form are currently approved under OMB Approval No. 0915-0314, with the expiration date of August 31, 2023. The NFLP Due Diligence Form is a new form. HRSA seeks to use the NFLP Due Diligence Form for recipients to formally notify HRSA of any write-off amounts due to uncollectible debt and loan cancellation due to death and permanent/total disability. For program efficiency, HRSA is adding the new NFLP Due Diligence Form to the current NFLP ICR under OMB No. 0915-0314.

A 60-day notice published in the **Federal Register** on March 8, 2023, vol. 88, No. 45; pp. 14378-79. There were no public comments.

*Need and Proposed Use of the Information:* Section 846A of the Public Health Service Act provides the Secretary of HHS with the authority to enter into agreements with accredited schools of nursing for the establishment and operation of student loan funds to increase the number of qualified nurse faculty. Under the agreements, HRSA makes awards to accredited schools of nursing and the schools provide loans to students enrolled in advanced education nursing degree programs who are committed to becoming nurse faculty. Following graduation from the NFLP grant recipient school, NFLP borrowers may receive up to 85 percent of loan cancellation over a 4-year period in exchange for service as full-time faculty at a school of nursing. The NFLP grant recipient school collects any

portion of the loan that is not cancelled and any loans that go into repayment and deposits these monies into the NFLP loan fund to make additional NFLP loans.

The NFLP—Program Specific Data Form is a required electronic attachment within the NFLP application materials. The data provided in the form is essential for the formula-based criteria used to determine the award amount to the applicant schools. The form collects application related data from applicants such as the amount requested, number of students to be funded, tuition information, and projected unused loan fund balance. This data collection assists HRSA in streamlining the application submission process, enabling an efficient award determination process, and facilitating reporting on the use of funds and analysis of program outcomes. There have been no changes to this form.

The NFLP—APR Financial Data Form is an online form that exists in the HRSA Electronic Handbooks Performance Report module. The NFLP—APR Financial Data Form collects outcome and financial data to capture the NFLP loan fund account activity related to financial receivables, disbursements, and borrower account data related to employment status, loan cancellation, loan repayment and collections. NFLP grant recipient schools will provide HHS with current and cumulative information on (1) NFLP loan funds received, (2) number and amount of NFLP loans made, (3) number and amount of loans cancelled, (4) number and amount of loans in repayment, (5) loan default rate percent, (6) number of NFLP graduates employed as nurse faculty, and (7) other related loan fund costs and activities. NFLP grant recipient schools must keep records of all NFLP loan fund transactions. The NFLP—APR Financial Data Form is used to monitor grantee performance by collecting information related to the NFLP loan fund operations and financial activities for a specified reporting period (July 1 through June 30 of the academic year). NFLP grant recipient schools are

required to complete and submit the NFLP—APR Financial Data Form annually. The data provided in the form is essential for HRSA to effectively monitor the school’s use of NFLP funds in accordance with the statute and program guidelines. There have been no changes to this form.

The NFLP Due Diligence Form will be a required form to be completed and submitted electronically by NFLP grant recipient schools. This form indicates that due diligence has been exercised in the cancellation of any remaining loan funds for NFLP borrowers due to permanent/total disability, death, and uncollectible/bad debt write-offs. The data collected on the due diligence form will include the student borrower’s unique ID number, reason for cancellation, the amount of principal loaned, the total amount of principal loan funds and corresponding interest canceled, and the outstanding amount of principal/interest being canceled or written-off. The NFLP Due Diligence Form is essential for monitoring performance measure outcomes and to verify and validate accuracy of information submitted on the NFLP Annual Performance Reports.

*Likely Respondents:* NFLP grant recipient schools and applicants to the NFLP program.

*Burden Statement:* Burden in this context means the time expended by persons to generate, maintain, retain, disclose, or provide the information requested. This includes the time needed to review instructions; to develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information. The total annual burden hours estimated for this ICR are summarized in the table below.

**TOTAL ESTIMATED ANNUALIZED BURDEN HOURS**

Form name	Number of respondents	Number of responses per respondent	Total responses	Average burden per response (in hours)	Total burden hours
Nurse Faculty Loan Program—Program Specific Data Form .....	90	1	90	8	720
Nurse Faculty Loan Program—Annual Performance Report Financial Data Form .....	207	1	207	6	1242
Nurse Faculty Loan Program—Due—Diligence Form .....	20	1	20	1	20



TOTAL ESTIMATED ANNUALIZED BURDEN HOURS—Continued

Form name	Number of respondents	Number of responses per respondent	Total responses	Average burden per response (in hours)	Total burden hours
Total Burden .....	317	3	317	15	1982

**Maria G. Button,**  
 Director, Executive Secretariat.  
 [FR Doc. 2023–10929 Filed 5–22–23; 8:45 am]  
 BILLING CODE 4165–15–P

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

[Document Identifier: OS–0937–0198]

**Agency Information Collection Request. 30-Day Public Comment Request**

**AGENCY:** Office of the Secretary, HHS.  
**ACTION:** Notice.

**SUMMARY:** In compliance with the requirement of the Paperwork Reduction Act of 1995, the Office of the Secretary (OS), Department of Health and Human Services, is publishing the following summary of a proposed collection for public comment.

**DATES:** Comments on the ICR must be received on or before June 22, 2023.

**ADDRESSES:** Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting “Currently under 30-day Review—Open for Public Comments” or by using the search function.

**FOR FURTHER INFORMATION CONTACT:** Sherrette Funn, [Sherrette.Funn@hhs.gov](mailto:Sherrette.Funn@hhs.gov) or (202) 264–0041, or [PRA@HHS.GOV](mailto:PRA@HHS.GOV).

When submitting comments or requesting information, please include the document identifier 0937–0198–30D and project title for reference.

**SUPPLEMENTARY INFORMATION:** Interested persons are invited to send comments regarding this burden estimate or any other aspect of this collection of information, including any of the following subjects: (1) The necessity and utility of the proposed information collection for the proper performance of the agency’s functions; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

*Title of the Collection:* Public Health Service Policies on Research Misconduct (42 CFR part 93).

*Type of Collection:* Extension.

*OMB No.:* OS–0937–0198.

*Abstract:* The Office of Research Integrity is requesting an extension on a currently approved collection. The purpose of the Institutional Assurance and Annual Report on Possible Research Misconduct form PHS–6349 is to provide data on the amount of research misconduct activity occurring in institutions conducting PHS-supported research. The purpose of the Assurance of Compliance by Sub-Award Recipients forms PHS–6315 is to establish an assurance of compliance for a sub-awardee institution. Forms PHS 6349

and PHS–6315 are also used to provide an annual assurance that the institution has established and will follow administrative policies and procedures for responding to allegations of research misconduct that comply with the Public Health Service (PHS) Policies on Research Misconduct (42 CFR part 93).

Research misconduct is defined as receipt of an allegation of research misconduct and/or the conduct of an inquiry and/or investigation into such allegations. These data enable the ORI to monitor institutional compliance with the PHS regulation.

There were minor revisions made on forms PHS–6349 and PHS–6315. The revisions will not alter the data collection.

*Need and Proposed Use:* The information is needed to fulfill section 493 of the Public Health Service Act (42 U.S.C. 289b), which requires assurances from institutions that apply for financial assistance under the Public Health Service Act for any project or program that involves the conduct of biomedical or behavioral research. In addition, the information is also required to fulfill the assurance and annual reporting requirements of 42 CFR part 93. ORI uses the information to monitor institutional compliance with the regulation. Lastly, the information may be used to respond to congressional requests for information to prevent misuse of Federal funds and to protect the public interest.

ESTIMATED ANNUALIZED BURDEN HOUR TABLE

Forms (if necessary)	Respondents (if necessary)	Number of respondents	Number of responses per respondents	Average burden per response	Total burden hours
PHS–6349 .....	Awardee Institutions .....	5,770	1	10/60	961
PHS–6315 .....	Sub-Awardee Institutions .....	156	1	5/60	13
Total .....	.....	5,926	2	.....	974

**Sherrette A. Funn,**  
 Paperwork Reduction Act Reports Clearance Officer, Office of the Secretary.  
 [FR Doc. 2023–10938 Filed 5–22–23; 8:45 am]  
 BILLING CODE 4150–31–P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Indian Health Service

#### Privacy Act of 1974; System of Records

**AGENCY:** Indian Health Service, Department of Health and Human Services.

**ACTION:** Notice of a modified system of records.

**SUMMARY:** In accordance with the requirements of the Privacy Act of 1974, as amended, the Department of Health and Human Services (HHS) is modifying a system of records maintained by the Indian Health Service (IHS), System No. 09-17-0003, Indian Health Service Medical Staff Credentials and Privileges Records. The system of records covers records about individuals who request credentialing and privileging to serve as IHS medical or health care professionals.

**DATES:** In accordance with 5 U.S.C. 552a(e)(4) and (11), this Notice is applicable upon publication, subject to a 30-day period in which to comment on the new and revised routine uses, described below. Please submit any comments by June 22, 2023.

**ADDRESSES:** The public should address written comments by mail or email to: Heather H. McClane, Senior Official for Privacy, Indian Health Service, 5600 Fishers Lane—MAIL STOP: 09E70, Rockville, MD 20857, or [Heather.Mcclane@ihs.gov](mailto:Heather.Mcclane@ihs.gov).

**FOR FURTHER INFORMATION CONTACT:** General questions about this system of records should be submitted by mail or email to CAPT Jana Towne, Acting Director, Office of Quality, 5600 Fishers Lane—MAIL STOP: 08N70A, Rockville, MD 20857, or [Jana.Towne@ihs.gov](mailto:Jana.Towne@ihs.gov); telephone (301) 273-4152.

**SUPPLEMENTARY INFORMATION:** The following modifications have been made to the System of Records Notice (SORN) for System No. 09-17-0003, Indian Health Service Medical Staff Credentials and Privileges Records:

- The System Name no longer includes “HHS/IHS/OCPS,” because the agency component responsible for the system of records is now identified in the System Location section.
- The Security Classification has been changed from “None” to “Unclassified” because the information in the system of records is not classified.
- The System Location section now provides the name and address of the agency component responsible for the system of records, instead describing physical records locations.

- The System Manager(s) section has been amended to include address and contact information for the official serving as the “overall” System Manager and for the Area and Clinical Directors serving as the System Managers for purposes of receiving Privacy Act requests. A lengthy list of IHS Service Unit addresses which was included in an Appendix to the SORN (and which did not include email addresses or telephone numbers) has been removed.

- The Authority section no longer cites the Indian Self Determination and Education and Assistance Act (25 U.S.C. 450), because Tribal Health Programs credential and privilege their own providers using separate records; and no longer cites the Federal Records Act and the Privacy Act, because those are not sufficiently specific authorities for the maintenance of the records in this system of records.

- In the Purpose(s) section, which contains four purpose descriptions:

(1) The first purpose description has been revised to change “medical staff members” to “medical and health care professionals” and to insert “having their identity confirmed”, as well as inserted the terms “where required” and “education.”

(2) The second purpose description now includes “sexual misconduct” and “medical malpractice” as examples of information indicative of an individual’s professional competence, character, and ethical qualifications.

(3) The third purpose description has been revised to remove references to the Health Care Quality Improvement Act of 1986 and the Health Insurance Portability and Accountability Act of 1996; to replace the citation to the Public Law governing the National Practitioner Data Bank (NPDB) with the U.S. Code cite; and to change “information concerning current or former IHS medical staff members whose professional health care activity failed to conform to generally-accepted standards of professional medical practice” to “information on certain adverse events and medical malpractice payments concerning current or former IHS medical staff members so that IHS and other health care entities may make informed decisions regarding hiring and privileging of those medical staff members.”

- The Categories of Individuals section has been revised to describe the category of individuals as applicants who request credentialing and privileging to serve as IHS medical or health care professionals (instead of as prospective, current, and former IHS medical staff members). In addition, the term “IHS medical or health care

professionals” used in the revised category description is now explained as including two sub-types: (1) licensed practitioners; and (2) licensed staff members who neither maintain clinical privileges nor are governed by the medical staff bylaws but whose position requires a license to perform duties that need to be verified and tracked (instead of four sub-types: Provisional, Active, Temporary, and Courtesy or Associate).

- The Categories of Records section has been revised to describe the records as “IHS medical staff membership and privilege applications and associated forms, as well as additional information to track credentials” followed by an updated list of types of information included. Two information types have been changed (*i.e.*, “performance awards” has been changed to “performance status,” and “adverse or disciplinary actions” has been changed to “adverse or disciplinary actions regarding professional competence and personal characteristics”); “evaluations and approvals completed by IHS medical staff reviewers” has been removed; and these information types have been added: addresses, date of birth, National Provider Identifier number, health and immunization status, peer references, training, Medical Quality Assurance Records protected by 25 U.S.C. 1675, and records protected by 42 CFR part 2, Confidentiality of Substance Use Disorder Patient Records.

- The Record Source Categories section has been revised to include an additional source, *i.e.*, “other sources of professional information.”

- In the Routine Uses section, an introduction and one new routine use have been added and six routine uses have been revised, as follows:

(1) The introduction states: “In addition to the disclosures authorized directly in the Privacy Act at 5 U.S.C. 552a(b)(1) and (b)(2) and (b)(4) through (b)(11), these routine uses specify circumstances under which the agency may disclose information from this system of records to a non-HHS officer or employee without the consent of the subject individual.”

(2) In routine use 1, which authorizes disclosures to organizations conducting studies of IHS health care delivery, “The Joint Commission on the Accreditation of Healthcare Organizations” is now followed by the abbreviation “(The Joint Commission).”

(3) Routine use 2, which authorizes disclosures to entities that maintain license and registration issuance, retention, and revocation records, has been revised to add “Social Security number” and “personal characteristics that fail to conform to social norms

concerning lawful behaviors” as items of information authorized to be disclosed; to add “direct contract” as a type of medical staff member about whom information is authorized to be disclosed; and to refer to “the NPDB” instead of to “the NPDB–HIPDB established under title IV of Public Law 99–660 and section 221(a) of Public Law 104–191.”

(4) In routine use 3 (which authorizes disclosures of an applicant’s biographic data to verify with third parties that the applicant’s claimed background and employment data and credentials are valid), “potential applicant” has been changed to “applicant”; “IHS medical staff and/or privileges applications” has been changed to “IHS medical staff membership and privileges applications”; “personal characteristics” has been added to the description of qualifications evaluated; “State or local government health profession licensing board” has been changed to “Federal, State, or local government health profession licensing or certification board”; “health related professional organization” has been changed to “health care oversight or professional monitoring organization or program,” and the examples of same now include “The Joint Commission” and now refer to “the National Practitioner Data Bank” instead of to “the NPDB–HIPDB established under Title IV of Public Law 99–660 and section 221(a) of Public Law 104–191”; and “all claimed background” has been changed to “a clinician’s claimed background.”

(5) In routine use 4 (which authorizes disclosures to enable government agencies and private sector organizations to which the subject individual applies for clinical privileges, membership, or licensure to document information about the individual’s professional performance while employed by the IHS), the words “enabling them” have been added to clarify that the disclosures aid the recipients’ (not IHS’s) documentation; “Federal agencies” has been changed to “Federal agencies or organizations” in the description of disclosure recipients; the Office of Personnel Management has been removed as an example of a Federal agency recipient; and “character” has been added as a type of performance information that may be disclosed for the recipient’s documentation purposes.

(6) Routine use 5, which authorizes disclosures in litigation and similar proceedings, has been reorganized and reworded. A requirement that the disclosures be “compatible with the purpose for which the records were

collected” has been removed as redundant, because it repeats part of the definition of a routine use.

(7) Routine use 7 is new; it authorizes medical quality assurance records about the subject of a quality assurance action to be disclosed for any purposes authorized by 25 U.S.C. 1675(d) and (e)(2) to the recipients described in 25 U.S.C. 1675(d)(1) and (e)(2).

(8) Routine use 8 (formerly numbered as 7), which currently authorizes disclosures of relevant records from this system of records to the appropriate enforcement agency when a “system of records” maintained by IHS indicates a violation or potential violation of law, has been revised to authorize disclosures of relevant records from this system of records to the appropriate enforcement agency when “a record in this system of records, on its face, or in conjunction with other records” indicates a violation or potential violation of law.

- The Storage section, which currently states that records are stored in “file folders and computer-based or electronic files,” has been revised to add that the file folders are “stored at the IHS facilities or the Federal Record Center” and the computer-based or electronic records are “located at the IHS Albuquerque Data Center in Albuquerque, NM.”

- The Retrieval section has been revised to change “numbers necessary to establish the identity of an individual whose record is maintained in the system of records” to “numbers necessary to ensure that the records retrieved are about the intended individual.”

- The Retention and Disposal section contains the description of the retention periods previously included at the end of the Safeguards section, and now cites the applicable National Archives and Records Administration (NARA)-approved disposition schedule.

- The Safeguards section has been revised to mention applicable laws, rules, and policies at the start, instead of in a numbered paragraph near the end; to remove a numbered paragraph addressing retention and disposal practices; to describe additional authorized users (*i.e.*, Credentialist; and IHS Chief Medical Officer and Quality Assurance Risk Management Committee members and their designees); to update the physical safeguards description to include paper records; to add a paragraph describing technical safeguards; and to update the administrative safeguards description to include a statement that security controls are reviewed and assessed on an ongoing basis and a description of

the training and rules of behavior requirements that users must meet prior to being granted system access and periodically thereafter.

- The sections describing procedures for making Privacy Act requests have been reorganized to outline the required contents of any Privacy Act request in the Access Request Procedures section, to incorporate those requirements by reference in the Contesting Record and Notification procedures sections, and to include additional requirements specific to amendment requests in the Contesting Record procedures section. The required contents for any Privacy Act request include these new items: telephone number and/or email address, and date and place of birth. The procedures now explain how to verify identity, instead of merely requiring identity to be verified in accordance with the HHS Privacy Act regulations. Instead of indicating that an individual may make a request in person, unannounced, the procedures now state that an individual may request an appointment to review the records in person. A note has been added at the end of the Access Request Procedures section about access limitations in 25 U.S.C. 1675 that apply to any records that are Medical Quality Assurance records.

Because some of these changes are significant, a report on the modified system of records was sent to the Office of Management and Budget (OMB) and the Congressional committees that oversee privacy, in accordance with 5 U.S.C. 552a(r).

**Roselyn Tso,**

*Director, Indian Health Service.*

**SYSTEM NAME AND NUMBER:**

Indian Health Service Medical Staff Credentials and Privileges Records, 09–17–0003.

**SECURITY CLASSIFICATION:**

Unclassified.

**SYSTEM LOCATION:**

The address of the agency component responsible for the system of records is: Office of Chief Medical Officer (CMO), Indian Health Service, 5600 Fishers Lane—MAIL STOP: 08E37A, Rockville, MD 20857.

**SYSTEM MANAGER(S):**

The System Manager for the overall system of records (also known as the Policy Coordinating Official) is: Director, Office of CMO, IHS, 5600 Fishers Lane—MAIL STOP: 08E37A, Rockville, MD 20857, [loretta.christensen@ihs.gov](mailto:loretta.christensen@ihs.gov), (732) 740–6702.

The Area Director, together with the Clinical Director of the IHS Service Unit where the individual applied for credentialing and privileging, is the System Manager who the individual must contact to make a Privacy Act request. Requests must be addressed to "Area and Clinical Directors" at the applicable Area Office address listed below:

- *Alaska Area:* Alaska Area Native Health Service, 4141 Ambassador Drive—Suite 300, Anchorage, AK 99508–5928, (907) 729–3686.
- *Albuquerque Area:* Albuquerque Area Office, Indian Health Service, 4101 Indian School Rd. NE—Suite 225, Albuquerque, NM 87110–3988, (505) 256–6800.
- *Bemidji Area:* Bemidji Area Office, Indian Health Service, Bemidji Technology Park, 2225 Cooperative Ct. NW, Bemidji, MN 56601, (218) 444–0452.
- *Billings Area:* Billings Area Office, Indian Health Service, 2900 4th Avenue North, Billings, MT 59101 (or Billings Area Office, P.O. Box 36600, Billings, MT 59107), (406) 247–7106.
- *California Area:* Indian Health Service, California Area Office, John E. Moss Federal Building, 650 Capitol Mall—Suite 7–100, Sacramento, CA 95814, (916) 930–3927.
- *Great Plains Area:* Great Plains Area Indian Health Service, 115 4th Avenue SW—Room 309, Aberdeen, SD 57401, (605) 226–7581.
- *Nashville Area:* Nashville Area Indian Health Service, 711 Stewarts Ferry Pike, Nashville, TN, 37214, (615) 467–1500.
- *Navajo Area:* Navajo Area Indian Health Service (NAIHS), 272 Hwy 264, Window Rock, AZ 86515–9020 (or Navajo Area Indian Health Service (NAIHS), P.O. Box 9020, Window Rock, AZ 86515), (928) 871–5812, (928) 871–5813, or (928) 871–5801.
- *Oklahoma City Area:* Oklahoma City Area Indian Health Service, 701 Market Drive, Oklahoma City, OK 73114, (405) 951–3820.
- *Phoenix Area:* Phoenix Area Office, Indian Health Service, Two Renaissance Square, 40 N. Central Avenue—Suite 504, Phoenix, AZ 85004, (602) 364–5039.
- *Portland Area:* Portland Area Indian Health Service, 1414 NW Northrup Street—Suite 800, Portland, OR 97209, (503) 414–5555.
- *Tucson Area:* Tucson Area Indian Health Service, 7900 South J Stock Road, Tucson, AZ 85746, (520) 295–2405.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Snyder Act (25 U.S.C. 13); Indian Health Care Improvement Act, as

amended (25 U.S.C. 1601 *et seq.*); and Transfer Act of 1954 (42 U.S.C. 2001 through 2004).

**PURPOSE(S) OF THE SYSTEM:**

The records in this system of records are used for these purposes:

1. To ensure that IHS medical and health care professionals are qualified, their identity confirmed, are competent, and capable of delivering quality health services consistent with those of the medical community at large and that, where required, they are granted privileges commensurate with their education, training, and competence and with the ability of the facility to provide adequate support, equipment, services, and staff.
2. To inform health care practitioner(s) and staff of health care facilities, State or county health professional societies, or licensing boards to whom the subject individual may apply for clinical privileges, membership, or licensure, of the subject individual's professional competence, character, and ethical qualifications. This may include information regarding drug or alcohol abuse or dependency, sexual misconduct, or medical malpractice.
3. To provide adverse health care practice information to the National Practitioner Data Bank (NPDB) established under 42 U.S.C. 11101 through 11152. The purpose of such a release is to provide information on certain adverse events and medical malpractice payments concerning current or former IHS medical staff members so that the IHS and other health care entities may make informed decisions regarding hiring and privileging of those medical staff members.
4. To provide health care practice information concerning current or former members of the IHS medical staff with Commissioned Corps status to the Division of Commissioned Personnel, U.S. Public Health Service, so that an informed decision may be made concerning the promotion, retention, or reassignment of the subject individual.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

The records are about applicants who request credentialing and privileging to serve as IHS medical or health care professionals, including both initial and renewing applicants and regardless of whether the application is successful.

IHS medical or health care professionals include:

1. *Licensed Practitioners (LPs).* This refers to a fully licensed, registered, or certified individual permitted by law to

independently provide patient care services within the scope of his or her license, registration, or certification, and in accordance with individually granted clinical privileges when the individual is a credentialed member of the IHS medical staff.

2. *Licensed staff members.* This refers to licensed staff who neither maintain clinical privileges nor are governed by the medical staff bylaws, but whose position requires a license to perform duties that need to be verified and tracked.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

The records are IHS medical staff membership and privilege applications and associated forms, as well as additional information to track credentials, which include the applicant's name, Social Security number, addresses, other identifying number(s) *e.g.*, date of birth, National Provider Identifier number, and self-attestations about and documents evidencing the following, as applicable: applicant's employment history; health and immunization status; liability insurance coverage; peer references; credentialing history (if the applicant is a licensed health professional); personal, educational, and demographic background information; professional performance summary information; continuing education, training, performance status; adverse or disciplinary actions regarding professional competence and personal characteristics; Medical Quality Assurance Records protected by 25 U.S.C. 1675; and records protected by 42 CFR part 2, Confidentiality of Substance Use Disorder Patient Records.

**RECORD SOURCE CATEGORIES:**

The information in the records is provided directly by the subject individual or by IHS health care personnel or other sources of professional information, including: references supplied by the subject individual; professional societies or associations; specialty boards; colleges and universities attended by the subject individual; former employers; health facilities or health providers with which the subject individual has been associated; liability insurance carriers; organizations providing cardiopulmonary resuscitation (CPR) training to the subject individual; State and local health and health care licensing or certifying organizations; and organizations that serve as repositories of information on health care professionals.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

In addition to the disclosures authorized directly in the Privacy Act at 5 U.S.C. 552a(b)(1), (b)(2), and (b)(4) through (b)(11), these routine uses specify circumstances under which the agency may disclose information from this system of records to a non-HHS officer or employee without the consent of the subject individual.

1. Records may be disclosed to organizations authorized to conduct evaluation studies concerning the delivery of health care services by the IHS (e.g., The Joint Commission on the Accreditation of Healthcare Organizations (The Joint Commission)).

2. The IHS may disclose records consisting of name, Social Security number, employment history, and any professional qualification information concerning medical staff membership and privileges, professional competence, clinical judgment, and personal character to a State or local government health professional licensing board, to the Federation of State Medical Boards, to the NPDB, and/or to a similar entity which has the authority to maintain records concerning the issuance, retention, or revocation of licenses or registrations necessary to practice a health professional occupation or specialty. The purpose of this disclosure is to inform medical profession licensing boards and appropriate entities about the health care practices of a current, terminated, resigned, or retired IHS or direct contract medical staff members whose professional health care activity significantly failed to conform to generally accepted standards of professional medical practice or personal characteristics that fail to conform to social norms concerning lawful behaviors. This will be done within the guidelines for notice, hearing, and review as delineated in the medical staff bylaws for the IHS facility and/or within other HHS or IHS regulations or policies.

3. The IHS may disclose biographic data and information supplied by an applicant to (a) references listed on the IHS medical staff membership and/or privileges applications and associated forms for the purpose of evaluating the applicant's professional qualifications, personal characteristics, experience, and suitability, (b) a Federal, State, or local government health profession licensing or certification board, or (c) a health care oversight or professional monitoring organization or program (e.g., the Federation of State Medical Boards, The Joint Commission, or the

National Practitioner Data Bank) for the purpose of verifying that a clinician's claimed background and employment data are valid and all claimed credentials are current and in good standing.

4. Records may be disclosed to other Federal agencies or organizations, to State and local governmental agencies, and to organizations in the private sector to which the subject individual applies for clinical privileges, membership, or licensure for the purpose of enabling them to document the qualifications, character, and competency of the individual to provide health services in his/her health profession based on his/her professional performance while employed by the IHS.

5. HHS may disclose records to the Department of Justice (DOJ), or to a court or other tribunal, when any of the following is a party to litigation or similar proceedings or has an interest in such proceedings: (1) HHS, or any component thereof; (2) any HHS employee in his/her official capacity; (3) any HHS employee in his/her individual capacity when the DOJ (or HHS, where it is authorized to do so) has agreed to represent the employee; or (4) the United States or any agency thereof, where HHS determines that the litigation is likely to affect HHS or any of its components. In order to disclose information in these circumstances, HHS must determine that the use of the records by the DOJ, court, or other tribunal is relevant and necessary to the proceedings and would help in the effective representation of the governmental party.

6. Records may be disclosed to a congressional office from the record of an individual in response to a verified inquiry from the congressional office made at the written request of that individual.

7. Medical quality assurance records about the subject of a quality assurance action may be disclosed for any purposes authorized by 25 U.S.C. 1675(d) and (e)(2), to the recipients described in 25 U.S.C. 1675(d)(1) and (e)(2).

8. In the event that a record in this system of records, on its face, or in conjunction with other records, indicates a violation or potential violation of law, whether civil, criminal, or regulatory in nature, and whether arising by general statute or particular program statute, or by regulation, rule, or order issued pursuant thereto, the relevant records in this system of records may be referred to the appropriate agency, whether Federal, State, local, Tribal, or foreign, charged

with enforcing or implementing the statute or rule, regulation, or order issued pursuant thereto.

9. Records may be disclosed to appropriate agencies, entities, and persons when (1) HHS suspects or has confirmed that there has been a breach of the system of records; (2) HHS has determined that as a result of the suspected or confirmed breach there is a risk of harm to individuals, HHS (including its information systems, programs, and operations), the Federal Government, or national security; and (3) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with HHS's efforts to respond to the suspected or confirmed breach or to prevent, minimize, or remedy such harm.

10. Records may be disclosed to another Federal agency or Federal entity, when HHS determines that information from this system of records is reasonably necessary to assist the recipient agency or entity in (1) responding to a suspected or confirmed breach or (2) preventing, minimizing, or remedying the risk of harm to individuals, the recipient agency or entity (including its information systems, programs, and operations), the Federal Government, or national security, resulting from a suspected or confirmed breach.

**POLICIES AND PRACTICES FOR STORAGE OF RECORDS:**

The records are stored in two ways: records stored in file folders are stored at the IHS facilities or the Federal Record Center, and computer-based or electronic records are located at the IHS Albuquerque Data Center in Albuquerque, NM.

**POLICIES AND PRACTICES FOR RETRIEVAL OF RECORDS:**

The records are indexed and retrieved by name, Social Security number, and any other identifying numbers necessary to ensure that the records retrieved are about the intended individual.

**POLICIES AND PRACTICES FOR RETENTION AND DISPOSAL OF RECORDS:**

In accordance with NARA-approved schedule DAA-0513-2018-0002, items 1.1 and 1.2, records about successful applicants are maintained by the IHS for 10 years after the individual's termination of employment or association with IHS, and records about unsuccessful applicants are retained for 3 years after the individual's non-selection or rejection. After these periods of retention expire, paper records are destroyed by shredding or

burning and electronic records are destroyed by deleting and purging.

**ADMINISTRATIVE, TECHNICAL, AND PHYSICAL SAFEGUARDS:**

The records are protected from unauthorized access by the following safeguards. All safeguards conform to applicable laws, rules, and policies, including the HHS Information Security and Privacy Program, <https://www.hhs.gov/ocio/securityprivacy/>, the E-Government Act of 2002, as amended (44 U.S.C. ch. 35), pertinent National Institutes of Standards and Technology (NIST) publications, and OMB Circular A-130, Managing Information as a Strategic Resource.

- *Authorized Users:* Access to the records is limited to authorized personnel for use in the performance of their official duties. Authorized personnel include: Credentialist (Medical Staff Professionals), Physician Recruitment and other Health Professions Branch Staff and Area Governing Board Members at IHS Area Offices, and Service Unit Directors, Clinical Directors, and members of the Credentials and Privilege Committee of each IHS Service Unit. The IHS CMO and the Quality Assurance Risk Management Committee members or their designees are authorized users for purposes of review under the protection of 25 U.S.C. 1675. At each location where records in this system of records are maintained, a list of personnel or categories of personnel having an official need-to-know has been developed and is maintained.

- *Physical Safeguards:* Paper records are kept in locked metal filing cabinets or in locked desk drawers in secured rooms at all times when not in use during working hours and at all times during non-working hours. Record storage areas, including file cabinets and desks, are not left unattended or unlocked during office hours, including lunch hours. When copying records for authorized purposes, care is taken to ensure that any imperfect pages are not left in the reproduction room where they can be read but are destroyed or obliterated.

- *Technical Safeguards:* Technical security measures are in place on all devices used on the IHS network. Any attempts by unauthorized individuals to gain access are automatically logged and immediately reviewed. The individuals permitted to access these records will be limited to employees and contractors with responsibility for conducting regulatory oversight who have security clearances at the T3 level (Non-Critical Sensitive positions requiring Secret

clearance) or T4 level (Non-Sensitive High Risk-Public Trust).

Protection for electronic records include programmed verification of valid user personal identification verification (PIV) code and password prior to logging on to the system; mandatory password changes; limited log-ins; virus protection; encryption; firewalls and intrusion detection systems; and user rights/file attribute restrictions. The password protection imposes username and password log-in requirements to prevent unauthorized access. Each username is assigned limited access rights to files and directories at varying levels to control file sharing and ensure a separation of duties. There are routine daily backup procedures, and backup files are securely stored off-site.

*Administrative Safeguards:* Security controls are reviewed and assessed on an ongoing basis. All IHS system users are required to complete role-based training, IHS rules of behavior agreements, and records management and information system security and privacy awareness training courses before being granted access and annually thereafter. Only persons who have an official need-to-know are entrusted with records from this system of records, and they are instructed to safeguard the confidentiality of these records on an ongoing basis and to destroy (if authorized for destruction) or return any copies entrusted to them when the need to know has expired. Proper charge-out procedures are followed for the removal of paper records from the area in which they are maintained. Before an employee who will control disclosure of records can work with the records (*i.e.*, employees who report to the system manager) the system manager or designee ensures that the employee has received training in the safeguards applicable to the records and is aware of the actions to take to restrict disclosure. The Identity Access Management supervisors are responsible for submitting appropriate access requests for IHS system users on their team and for reviewing their team members' access.

**RECORD ACCESS PROCEDURES:**

To request access to records about you in this system of records, submit a written access request addressed to "Area and Clinical Directors" at the applicable Area Office address listed in the "System Manager(s)" section of this SORN. The request must:

- Reasonably describe the records sought;
- Include the name of the IHS Service Unit where you applied for

credentialing and privileging and either the date when the application was submitted (if the application was unsuccessful) or the dates and locations where you served;

- Include if you are a current or former IHS medical or health care professional, a direct contractor or a licensed staff member; and
- Include (for contact purposes and identity verification purposes) your full name, current address, telephone number and/or email address, date and place of birth, signature, evidence of other names used (if seeking records retrieved by a name other than your current name), and, if needed by the agency, sufficient particulars contained in the records (such as, your Social Security number or other identifying numbers) to enable the agency to locate the records and distinguish between records on subject individuals with the same name.

In addition, to verify your identity, your signature on the request must be notarized or the request must include, above your signature, your written certification that you are the individual who you claim to be and that you understand that the knowing and willful request for or acquisition of a record pertaining to an individual under false pretenses is a criminal offense subject to a fine of up to \$5,000. We may request additional identification when we hold records for different persons with the same name or where an apparent discrepancy exists between information contained in the record and that provided by the individual requesting access to the record.

In your written request, you may request that copies of the records be sent to you or you may request an appointment to review the records in person (including with a person of your choosing, if you provide written authorization for agency personnel to discuss the records in that person's presence), at a specific IHS location (*e.g.*, where you currently work or formerly worked). If you make an appointment to review the records in person, you must bring to the appointment at least one piece of tangible photo identification, such as a driver's license or passport, that is current and not expired. You may also request an accounting of disclosures that have been made of records about you, if any. Requests by telephone will not be accepted.

To the extent the records are Medical Quality Assurance records protected by 25 U.S.C. 1675, the records may be disclosed only in accordance with the exceptions in 25 U.S.C. 1675(d), because the Privacy Act right of access

provisions are superseded by the confidentiality provisions protecting Medical Quality Assurance Records. Accordingly, Medical Quality Assurance Records will only be released pursuant to the Privacy Act when the Agency has decided to release the records in accordance with 25 U.S.C. 1675(d).

#### CONTESTING RECORD PROCEDURES:

To request correction of a record about you in this system of records, submit a written amendment request addressed to "Area and Clinical Directors" at the applicable Area Office address listed in the "System Manager(s)" section of this SORN. The request must contain the same information required for an access request and include verification of your identity in the same manner required for an access request. In addition, the request must reasonably identify the record and specify the information contested, the corrective action sought, and the reasons for requesting the correction; and should include supporting information to show how the record is inaccurate, incomplete, untimely, or irrelevant.

#### NOTIFICATION PROCEDURES:

To find out if the system of records contains a record about you, submit a written notification request addressed to "Area and Clinical Directors" at the applicable Area Office address listed in the "System Manager(s)" section of this SORN. The request must identify this system of records, contain the same information required for an access request, and include verification of your identity in the same manner required for an access request.

#### EXEMPTIONS PROMULGATED FOR THE SYSTEM:

None.

#### HISTORY:

74 FR 46436 (Sept. 9, 2009); 74 FR 50981 (Oct. 2, 2009); 83 FR 6591 (Feb. 14, 2018).

[FR Doc. 2023-10835 Filed 5-22-23; 8:45 am]

BILLING CODE 4165-16-P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of a meeting of the NIH Clinical Center Research Hospital Board.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* Center for Scientific Review Special Emphasis Panel PAR Panel; Research on Current Topics in Alzheimer's Disease and its Related Dementias.

*Date:* June 20–21, 2023.

*Time:* 8:00 a.m. to 8:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Holiday Inn Capitol, 550 C Street SW, Washington, DC 20024.

*Contact Person:* Mei Qin, MD, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5213, Bethesda, MD 20892, 301-875-2215, [qinmei@csr.nih.gov](mailto:qinmei@csr.nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; RFA Panel: Tobacco Regulatory Science A.

*Date:* June 21, 2023.

*Time:* 10:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Sepandarmaz Aschrafi, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4040D, Bethesda, MD 20892, (301) 451.4251, [Armaz.aschrafi@nih.gov](mailto:Armaz.aschrafi@nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; Maximizing Investigators' Research Award F.

*Date:* June 21–22, 2023.

*Time:* 10:00 a.m. to 8:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Brian Paul Chadwick, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (301) 594-3586, [chadwickbp@csr.nih.gov](mailto:chadwickbp@csr.nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; Fellowships: Brain Disorders and Related Neurosciences.

*Date:* June 22–23, 2023.

*Time:* 8:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Bethesda North Marriott Hotel & Conference Center, Montgomery County Conference Center Facility, 5701 Marinelli Road, North Bethesda, MD 20852.

*Contact Person:* Vilen A. Movsesyan, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4040M, MSC 7806, Bethesda, MD 20892, 301-402-7278, [movsesyanv@csr.nih.gov](mailto:movsesyanv@csr.nih.gov).

*Name of Committee:* Biological Chemistry and Macromolecular Biophysics Integrated Review Group; Chemical Biology and Probes Study Section (CBP).

*Date:* June 22–23, 2023.

*Time:* 8:00 a.m. to 8:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Residence Inn Bethesda, 7335 Wisconsin Avenue, Bethesda, MD 20814.

*Contact Person:* Michael Eissenstat, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4166, MSC 7806, Bethesda, MD 20892, 301-435-1722, [eissenstatma@csr.nih.gov](mailto:eissenstatma@csr.nih.gov).

*Name of Committee:* Brain Disorders and Clinical Neuroscience Integrated Review Group; Acute Neural Injury and Epilepsy Study Section.

*Date:* June 22–23, 2023.

*Time:* 8:00 a.m. to 7:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* The Watergate, 2650 Virginia Avenue NW, Washington, DC 20037.

*Contact Person:* Paula Elyse Schauwecker, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5201, Bethesda, MD 20892, 301-760-8207, [schauweckerpe@csr.nih.gov](mailto:schauweckerpe@csr.nih.gov).

*Name of Committee:* Cardiovascular and Respiratory Sciences Integrated Review Group Lung; Injury, Repair, and Remodeling Study Section.

*Date:* June 22–23, 2023.

*Time:* 8:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Embassy Suites at the Chevy Chase Pavilion, 4300 Military Road NW, Washington, DC 20015.

*Contact Person:* Ghenima Dirami, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4122, MSC 7814, Bethesda, MD 20892, 240-498-7546, [diramig@csr.nih.gov](mailto:diramig@csr.nih.gov).

*Name of Committee:* Oncology 1-Basic Translational Integrated Review Group; Gene Regulation in Cancer Study Section.

*Date:* June 22–23, 2023.

*Time:* 8:00 a.m. to 8:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Blvd., Gaithersburg, MD 20878.

*Contact Person:* Manzoor A. Zarger, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6208, MSC 7804, Bethesda, MD 20892, (301) 435-2477, [zargerma@csr.nih.gov](mailto:zargerma@csr.nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844,



93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: May 17, 2023.

**David W. Freeman,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023–10897 Filed 5–22–23; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute of Environmental Health Sciences; Notice of Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of a meeting of the National Advisory Environmental Health Sciences Council.

This will be a hybrid meeting held in-person and virtually and will be open to the public as indicated below.

Individuals who plan to attend in-person or view the virtual meeting and need special assistance or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting. The meeting can be accessed from the NIH Videocast at the following link: <https://www.niehs.nih.gov/news/webcasts/index.cfm>.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Advisory Environmental Health Sciences Council, National Advisory Environmental Health Sciences Council (NAEHSC).

*Date:* June 6–7, 2023.

*Open:* June 6, 2023, 10:00 a.m. to 3:00 p.m.

*Agenda:* Call to Order, Report of the Director, Hypothetical Interventions to Reduce Racial and Ethnic Disparities in Phthalate Exposure and the Impact on Preterm Birth, and CSR's Initiatives to Strengthen Peer Review.

*Place:* NIEHS/National Institutes of Health, 111 TW Alexander Drive, Research Triangle Park, NC 27709, (Hybrid Meeting).

*Closed:* June 6, 2023, 3:15 p.m. to 5:00 p.m.

*Agenda:* To review and evaluate grant applications and/or proposals.

*Place:* NIEHS/National Institutes of Health, 111 TW Alexander Drive, Research Triangle Park, NC 27709,

*Open:* June 7, 2023, 10:00 a.m. to 3:45 p.m.

*Agenda:* Invited Speakers, NIEHS REEP, and DEIA Council Workgroup.

*Place:* NIEHS/National Institutes of Health, 111 TW Alexander Drive, Research Triangle Park, NC 27709, (Hybrid Meeting).

*Contact Person:* David M. Balshaw, BA, Ph.D., Acting Director and Chief, Division of Extramural Research and Training, National Institute of Environmental Health Sciences, P.O. Box 12233, MD EC–27, Research Triangle Park, NC 27709–2233, 984–287–3234, [balshaw@niehs.nih.gov](mailto:balshaw@niehs.nih.gov).

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

In the interest of security, NIH has stringent procedures for entrance into NIH federal property. Visitors will be asked to show one form of identification (for example, a government-issued photo ID, driver's license, or passport) and to state the purpose of their visit.

Information is also available on the Institute's home page: <https://www.niehs.nih.gov/about/boards/naehsc/index.cfm>, where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.115, Biometry and Risk Estimation—Health Risks from Environmental Exposures; 93.142, NIEHS Hazardous Waste Worker Health and Safety Training; 93.143, NIEHS Superfund Hazardous Substances—Basic Research and Education; 93.894, Resources and Manpower Development in the Environmental Health Sciences; 93.113, Biological Response to Environmental Health Hazards; 93.114, Applied Toxicological Research and Testing, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023–10895 Filed 5–22–23; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute on Aging; Notice of Closed Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material,

and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Institute on Aging Special Emphasis Panel; P01 Mitochondrial Mechanisms of Aging.

*Date:* July 6, 2023.

*Time:* 11:30 a.m. to 4:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, National Institute on Aging, Gateway Building, 7201 Wisconsin Avenue, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Ivan Tadeu Rebutini, Ph.D. Scientific Review Officer, National Institute on Aging, National Institutes of Health, 7201 Wisconsin Avenue, Bethesda, MD 20892, (301) 496–2879, [Ivan.rebutini@nih.gov](mailto:Ivan.rebutini@nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.866, Aging Research, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023–10899 Filed 5–22–23; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute of Mental Health; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Institute of Mental Health Special Emphasis Panel; Social Drivers of Mental Illnesses in Low and Middle Income Countries.

*Date:* June 22, 2023.

*Time:* 11:00 a.m. to 5:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

*Contact Person:* Claudio Dario Ortiz, Ph.D., Scientific Review Officer, Division of

Extramural Activities, National Institute of Mental Health, National Institutes of Health, Neuroscience Center, 6001 Executive Blvd., Rockville, MD 20892, 305-586-9937, [claudio.ortiz@nih.gov](mailto:claudio.ortiz@nih.gov).

*Name of Committee:* National Institute of Mental Health Special Emphasis Panel; BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00).

*Date:* June 22, 2023.

*Time:* 11:00 a.m. to 6:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

*Contact Person:* Emma Perez-Costas, Ph.D., Scientific Review Officer, Division of Extramural Activities, National Institute of Mental Health, National Institutes of Health, Neuroscience Center, 6001 Executive Blvd., Rockville, MD 20892, 301-827-9275, [emma.perez-costas@nih.gov](mailto:emma.perez-costas@nih.gov).

(Catalogue of Federal Domestic Assistance Program No. 93.242, Mental Health Research Grants, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Melanie J. Pantoja,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10930 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Heart, Lung, and Blood Institute; Amend Notice of Meeting

Notice is hereby given of a change in the meeting of the National Heart, Lung, and Blood Institute Special Emphasis Panel, June 6, 2023, 1 p.m. to 5 p.m., National Institutes of Health, 6705 Rockledge Drive, Bethesda, MD, 20892 which was published in the **Federal Register** on May 15, 2023, FR Document No. 2023-10224, 88 FRN 30997.

This notice is being amended to correct the June 6, 2023 meeting title that was published as “The National Heart, Lung, and Blood Institute Special Emphasis Panel SPECIAL EMPHASIS PANEL”. The correct title is “The National Heart, Lung, and Blood Institute Special Emphasis Panel NRSA Member Conflict Panel”. The meeting is closed to the public.

Dated: May 18, 2023.

**Melanie J. Pantoja,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10936 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Request for Information on the Prioritization of Drug, Vaccine, and Dietary Supplement Research Needs for Pregnant, Postpartum, and Lactating Persons

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Request for information.

**SUMMARY:** The National Institute of Child Health and Human Development (NICHD) seeks nominations for drug, vaccine, and dietary supplement research needs to be considered in the development of a Priority List of Drug, Vaccine, and Dietary Supplement Research Needs for Pregnant, Postpartum, and Lactating Persons. The NICHD is gathering nominations for drugs prescribed for conditions specific to or that co-occur during pregnancy and the postpartum period, including for lactation; dietary supplements that may be used in preparation for, during, or after pregnancy; and vaccines used by pregnant or lactating persons to prevent or treat disease. Additionally, the NICHD is seeking information on factors and processes it could consider in prioritizing these nominations. Nominations are requested from public and private stakeholders such as, but not limited to, researchers, academia, small- and large-scale industries, non-profit organizations, patients, providers, advocacy groups, payors, and federal agencies.

**DATES:** The request for information is open for public comment and will be accepted through September 29, 2023.

**ADDRESSES:** Submissions must be submitted via a survey using the following link: <https://www.surveymonkey.com/r/PRGLAC23>.

**FOR FURTHER INFORMATION CONTACT:** Questions about this request for information should be directed to Camille Fabiyi, Ph.D., MPH, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, 6710B Rockledge Dr., Bethesda, MD 20892, [NICHD-PRGLAC@mail.nih.gov](mailto:NICHD-PRGLAC@mail.nih.gov), 301-496-3916.

**SUPPLEMENTARY INFORMATION:** This RFI is intended to obtain information to help advance recommendations outlined in the 2018 Report of the Task Force for Research Specific to Pregnant and Lactating Women (PRGLAC) and 2020 PRGLAC Implementation Plan. In 2016, Congress established PRGLAC through

the 21st Century Cures Act to advise the Secretary of Health and Human Services (HHS) regarding gaps in knowledge and research on safe and effective therapies for pregnant and lactating persons. The PRGLAC task force was charged with providing advice and guidance to the HHS Secretary on activities related to identifying and addressing gaps in knowledge and research on safe and effective therapies for pregnant and lactating persons, including the development of such therapies and the collaboration on and coordination of such activities.

The task force developed 15 recommendations based on information gleaned during four open meetings and a request for public comments. The recommendations were submitted in the PRGLAC Report to the HHS Secretary and Congress in September 2018. The report recommended that pregnant and lactating persons be included in the clinical research agenda. The task force published a PRGLAC Implementation Plan in August 2020. A comprehensive review of research conducted for the task force deliberations clearly showed the extremely limited information available on medication use in pregnancy and lactation. Evidence-based answers are required for pregnant and lactating persons and their clinicians to make fully informed choices based on the risks and benefits of medicating or not medicating conditions during pregnancy and lactation. The provision of clinical data is essential to increasing the quantity, quality, and timeliness of research on safety and efficacy of therapeutic products used by pregnant, postpartum, and lactating persons.

Most women use at least one medication during pregnancy and the postpartum period. Many women who become pregnant or are lactating already have chronic conditions needing treatment, in addition to conditions that may arise as a result of pregnancy or lactation. Consequently, because so few studies have been conducted, some prioritization is necessary to determine which drugs, vaccines, and dietary supplements should be studied first.

#### Information Requested

The NICHD seeks information and actionable recommendations on research gaps and needs as potential priorities for drugs, vaccines, and dietary supplements used by pregnant, postpartum, or lactating persons.

Comments are strongly encouraged to address challenges and knowledge gaps around drugs, vaccines, or dietary supplements used during pregnancy, the postpartum period, or lactation on

health disparity populations. NIH defines health disparity populations as racial and ethnic minority populations, less privileged socioeconomic status (SES) populations, underserved rural populations, sexual and gender minorities (SGM), and any subpopulations that can be characterized by two or more of these descriptions. For more information please refer to NIH definition of Health Disparity.

Respondents are asked to address the following topics in the nomination survey:

(1) Identify the drug, vaccine, or dietary supplement for this nomination. *If applicable, please include generic name of drug or medication.*

(2) Indicate if this nomination is for a:

- a. drug,
- b. vaccine,
- c. dietary supplement.

(3) Indicate the category of condition for the research question for the nominated drug, vaccine, or dietary supplement. *If there are multiple categories per drug, vaccine, or dietary supplement, please submit a separate nomination for each one.*

a. Pregnancy- or postpartum-specific conditions (*e.g.*, including but not limited to preterm labor, hyperemesis, labor induction, pre-eclampsia, postpartum hemorrhage).

b. Lactation-specific conditions (*e.g.*, including but not limited to low milk supply, mastitis).

c. General medical conditions that may occur in pregnant, postpartum, and lactating persons (*e.g.*, including but not limited to asthma, depression, diabetes, cardiac disease, STIs, HIV/AIDS, CMV, other infectious disease conditions).

(4) Indicate whether the drug, vaccine, or dietary supplement is used to treat or prevent a condition in:

- a. the mother,
- b. the fetus,
- c. both mother and fetus.

(5) Indicate the therapeutic indication that the drug, vaccine, or dietary supplement proposed in this nomination is intended to treat or prevent.

(6) If known, describe the proposed research question and rationale for urgency of need of the nominated drug, vaccine, dietary supplement, including existing evidence and feasibility of the proposed research question.

(7) If known, identify the study design and population that would be most effective in providing the needed evidence for the proposed nomination and the impact this evidence will have on clinical care.

(8) If applicable, describe research-related gaps and needs to enable or

facilitate the conduct of proposed studies, such as, but not limited to, biomarkers or other drug development tools, research infrastructure or collaborations, or workforce training needs.

(9) Describe any other factors to consider in the process of prioritizing research needs for drugs, vaccines, and dietary supplements used by pregnant, postpartum, and lactating persons.

To respond to this RFI, nominations must be made via the nomination form, which will be made available through September 29, 2023. Nominations submitted via email will not be considered. All responses will be compiled into a database that will be reviewed by a committee of stakeholder representatives, to be identified by the NICHD. The review will result in a preliminary priority list. An inaugural stakeholder meeting to review the final priority list and provide updates to the PRGLAC prioritization process will occur at a future date.

Responses to this RFI are voluntary and may be submitted anonymously. Please do not include any personally identifiable information or any information that you do not wish to make public. You may voluntarily include your name and contact information with your response. If you choose to provide NIH with this information, NIH will not share your name and contact information outside of the Federal Government unless required by law. Proprietary, classified, confidential, or sensitive information should not be included in your response. The Government will use the information submitted in response to this RFI at its discretion. Other than your name and contact information, the Government reserves the right to use any submitted information on public websites, in reports, in summaries of the state of the science, in any possible resultant solicitation(s), grant(s), or cooperative agreement(s), or in the development of future funding opportunity announcements. This RFI is for informational and planning purposes only and is not a solicitation for applications or an obligation on the part of the Government to provide support for any ideas identified in response to it. Please note that the Government will not pay for the preparation of any information submitted or for use of that information.

**Alison N. Cernich,**

*Deputy Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health.*

[FR Doc. 2023-10960 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* Cardiovascular and Respiratory Sciences Integrated Review Group Integrative Myocardial Physiology/Pathophysiology B Study Section.

*Date:* June 20–21, 2023.

*Time:* 8:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Embassy Suites Alexandria Old Town, 1900 Diagonal Road, Alexandria, VA 22314.

*Contact Person:* Kirk E Dineley, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 806E, Bethesda, MD 20892, (301) 867-5309, [dineleyke@csr.nih.gov](mailto:dineleyke@csr.nih.gov).

*Name of Committee:* Brain Disorders and Clinical Neuroscience Integrated Review Group Brain Injury and Neurovascular Pathologies Study Section.

*Date:* June 20–21, 2023.

*Time:* 8:00 a.m. to 7:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Embassy Suites at the Chevy Chase Pavilion, 4300 Military Road NW, Washington, DC 20015.

*Contact Person:* Alexander Yakovlev, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5206, MSC 7846, Bethesda, MD 20892, 301-435-1254, [yakovleva@csr.nih.gov](mailto:yakovleva@csr.nih.gov).

*Name of Committee:* Vascular and Hematology Integrated Review Group Integrative Vascular Physiology and Pathology Study Section.

*Date:* June 20–21, 2023.

*Time:* 8:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* The Bethesdan Hotel, 8120 Wisconsin Avenue, Bethesda, MD 20814.

*Contact Person:* Bukhtiar H Shah, DVM, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4120,

MSC 7802, Bethesda, MD 20892, (301) 806-7314, [shahb@csr.nih.gov](mailto:shahb@csr.nih.gov).

*Name of Committee:* Bioengineering Sciences & Technologies Integrated Review Group Drug and Biologic Therapeutic Delivery Study Section (DBTD).

*Date:* June 20–21, 2023.

*Time:* 8:00 a.m. to 7:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Canopy by Hilton, 940 Rose Avenue, North Bethesda, MD 20852.

*Contact Person:* Janice Duy, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive Bethesda, MD 20892, 301-594-3139 [janice.duy@nih.gov](mailto:janice.duy@nih.gov).

*Name of Committee:* Genes, Genomes, and Genetics Integrated Review Group Genetics of Health and Disease Study Section.

*Date:* June 20–21, 2023.

*Time:* 9:00 a.m. to 8:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Hyatt Regency Bethesda, One Bethesda Metro Center, 7400 Wisconsin Ave., Bethesda, MD 20814.

*Contact Person:* Christopher Payne, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Rm. 2208, Bethesda, MD 20892, 301-402-3702, [christopher.payne@nih.gov](mailto:christopher.payne@nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel Translational Immuno-Oncology.

*Date:* June 20–21, 2023.

*Time:* 9:00 a.m. to 6:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Maria Elena Cardenas-Corona, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive Bethesda, MD 20817, 301-867-5309, [maria.cardenas-corona@nih.gov](mailto:maria.cardenas-corona@nih.gov).

*Name of Committee:* Biology of Development and Aging Integrated Review Group Drug Discovery and Molecular Pharmacology C Study Section.

*Date:* June 20–21, 2023.

*Time:* 9:00 a.m. to 7:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Jeffrey Smiley, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6194, MSC 7804, Bethesda, MD 20892, (301) 272-4596, [smileyja@csr.nih.gov](mailto:smileyja@csr.nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393-93.396, 93.837-93.844, 93.846-93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10894 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Center for Scientific Review; Amended Notice of Meeting

Notice is hereby given of a change in the meeting of the Environmental Determinants of Disease Study Section (EDD), June 08, 2023, 09:00 a.m. to June 09, 2023, 06:00 p.m., National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD, 20892 which was published in the **Federal Register** on May 03, 2023, 88 FR 27918 Doc 2023-09381.

This meeting is being amended to change the time from 9:00 a.m. to 6:00 p.m. to 8:30 a.m. to 8:00 p.m. The meeting is closed to the public.

Dated: May 17, 2023.

**David W. Freeman,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10898 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Office of the Director, National Institutes of Health; Notice of Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of a meeting of the Advisory Committee to the Deputy Director for Intramural Research.

The meeting will be held as a virtual meeting and will be open to the public as indicated below. Individuals who plan to view the virtual meeting and need special assistance or other reasonable accommodations to view the meeting, should notify the Contact Person listed below in advance of the meeting. The meeting can be accessed from the NIH Videocast at the following link: <https://videocast.nih.gov/>.

*Name of Committee:* Advisory Committee to the Deputy Director for Intramural Research.

*Date:* June 29, 2023.

*Time:* 12:00–4:00 p.m. EST.

*Agenda:* The NIH Lasker Clinical Research Scholars Program supports clinical

researchers in the early stages of their independent research careers. In this meeting the Lasker Scholar program will be evaluated by a panel of outside reviewers.

*Place:* National Institutes of Health, 1 Center Drive, Building 1, Room 160, Bethesda, MD 20892, (Virtual Meeting).

This meeting is a virtual meeting via Zoom and can be accessed at: <https://nih.zoomgov.com/j/1603953532?pwd=ekhzWjFGQy9MN2lfeHRtRFRVSzBWdz09>.

*Meeting ID:* 160 395 3532.

*Passcode:* 504446.

One tap mobile:

+16692545252,,1603953532#,,,,\*504446# US (San Jose)

+16468287666,,1603953532#,,,,\*504446# US (New York)

Dial by your location:

+1 669 254 5252 US (San Jose)

+1 646 828 7666 US (New York)

+1 646 964 1167 US (US Spanish Line)

+1 669 216 1590 US (San Jose)

+1 415 449 4000 US (US Spanish Line)

*Find your local number:* <https://nih.zoomgov.com/u/adXt6RjRSZ>.

*Contact Person:* Margaret McBurney, Management Analyst, Office of the Deputy Director for Intramural Research, National Institutes of Health, 1 Center Drive, Room 160, Bethesda, MD 20892-0140, (301) 496-1921, [mmcburney@od.nih.gov](mailto:mmcburney@od.nih.gov).

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

Information is also available on the Office of Intramural Research home page: <http://sourcebook.od.nih.gov/>.

Dated: May 17, 2023.

**David W. Freeman,**

*Supervisory Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10896 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Library of Medicine Notice of Meeting Amended Notice of Meeting

Notice is hereby given of a change in the meeting of the National Library of Medicine Special Emphasis Panel, June 16, 2023, 12:00 p.m. to 6:00 p.m. This notice was published in the **Federal Register** on March 23, 2023, 88 FR 56, Page 17587.

This notice is being amended to change the date to July 21, 2023, 11:00 a.m. to 5:00 p.m. The meeting is closed to the public.

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10892 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute of Mental Health; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Institute of Mental Health Special Emphasis Panel; Bidirectional Influences Between Adolescent Social Media Use and Mental Health.

*Date:* June 21-22, 2023.

*Time:* 1:00 p.m. to 4:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

*Contact Person:* Regina Dolan-Sewell, Ph.D., Scientific Review Officer, Division of Extramural Activities, National Institute of Mental Health, National Institutes of Health, Neuroscience Center, 6001 Executive Blvd., Bethesda, MD 20852, (240) 796-6785, [regina.dolan-sewell@nih.gov](mailto:regina.dolan-sewell@nih.gov).

*Name of Committee:* National Institute of Mental Health Special Emphasis Panel; Early Stage Clinical Trials of Pharmacologic or Device-Based Interventions.

*Date:* June 23, 2023.

*Time:* 12:00 p.m. to 5:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

*Contact Person:* Marcy Ellen Burstein, Ph.D., Scientific Review Officer, Division of Extramural Activities, National Institute of Mental Health, National Institutes of Health, Neuroscience Center, 6001 Executive Blvd., Bethesda, MD 20892-9606, 301-443-9699, [bursteinme@mail.nih.gov](mailto:bursteinme@mail.nih.gov).

*Name of Committee:* National Institute of Mental Health Special Emphasis Panel; Non-Pharmacological Clinical Trials.

*Date:* June 26, 2023.

*Time:* 11:00 a.m. to 4:00 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

*Contact Person:* Serena Chu, Ph.D., Scientific Review Officer, Division of Extramural Activities, National Institute of Mental Health, National Institutes of Health, Neuroscience Center, 6001 Executive Blvd., Bethesda, MD 20852, 301-500-5829, [serena.chu@nih.gov](mailto:serena.chu@nih.gov).

(Catalogue of Federal Domestic Assistance Program No. 93.242, Mental Health Research Grants, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Melanie J. Pantoja,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10931 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Library of Medicine Notice of Meeting Amended Notice of Meeting

Notice is hereby given of a change in the virtual meeting of the Biomedical Library, Informatics and Data Science Review Committee, June 15-16, 2023, which was published in the **Federal Register** on March 23, 2023, 88 FR 56, Page 17587.

This notice is being amended to change the meeting times to 10:00 a.m. to 6:00 p.m. on June 15th and 10 a.m. to 12:00 p.m. on June 16th. The meeting is closed to the public.

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10893 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute on Aging; Notice of Closed Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the

provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Institute on Aging Special Emphasis Panel, FSH and Aging.

*Date:* June 16, 2023.

*Time:* 11:00 a.m. to 3:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, National Institute on Aging, Gateway Building, 7201 Wisconsin Avenue, Bethesda, MD 20892 (Virtual Meeting)

*Contact Person:* Kaitlyn Noel Lewis-Hardell, Ph.D., Scientific Review Officer, National Institute on Aging, Scientific Review Branch, 7201 Wisconsin Ave Rm 2E405, Bethesda, MD 20814, (301) 555-1234, [kaitlyn.hardell@nih.gov](mailto:kaitlyn.hardell@nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.866, Aging Research, National Institutes of Health, HHS)

Dated: May 17, 2023.

**Miguelina Perez,**

*Program Analyst, Office of Federal Advisory Committee Policy.*

[FR Doc. 2023-10900 Filed 5-22-23; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HOMELAND SECURITY

### U.S. Citizenship and Immigration Services

[OMB Control Number 1615-0067]

#### Agency Information Collection Activities; Revision of a Currently Approved Collection: Application for Asylum and for Withholding of Removal

**AGENCY:** U.S. Citizenship and Immigration Services, Department of Homeland Security.

**ACTION:** 60-Day notice.

**SUMMARY:** The Department of Homeland Security (DHS), U.S. Citizenship and Immigration (USCIS) invites the general public and other Federal agencies to comment upon this proposed extension of a currently approved collection of information. In accordance with the Paperwork Reduction Act (PRA) of 1995, the information collection notice is published in the **Federal Register** to obtain comments regarding the nature of the information collection, the categories of respondents, the estimated

burden (*i.e.*, the time, effort, and resources used by the respondents to respond), the estimated cost to the respondent, and the actual information collection instruments.

**DATES:** Comments are encouraged and will be accepted for 60 days until July 24, 2023.

**ADDRESSES:** All submissions received must include the OMB Control Number 1615–0067 in the body of the letter, the agency name and Docket ID USCIS–2007–0034. Submit comments via the Federal eRulemaking Portal website at <http://www.regulations.gov> under e-Docket ID number USCIS–2007–0034.

**FOR FURTHER INFORMATION CONTACT:** USCIS, Office of Policy and Strategy, Regulatory Coordination Division, Samantha Deshommes, Chief, telephone number (240) 721–3000 (This is not a toll-free number. Comments are not accepted via telephone message). Please note contact information provided here is solely for questions regarding this notice. It is not for individual case status inquiries. Applicants seeking information about the status of their individual cases can check Case Status Online, available at the USCIS website at <https://www.uscis.gov>, or call the USCIS Contact Center at 800–375–5283 (TTY 800–767–1833).

**SUPPLEMENTARY INFORMATION:**

**Comments**

You may access the information collection instrument with instructions, or additional information by visiting the Federal eRulemaking Portal site at: <http://www.regulations.gov> and enter USCIS–2007–0034 in the search box. All submissions will be posted, without change, to the Federal eRulemaking Portal at <http://www.regulations.gov>, and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to consider limiting the amount of personal information that you provide in any voluntary submission you make to DHS. DHS may withhold information provided in comments from public viewing that it determines may impact the privacy of an individual or is offensive. For additional information, please read the Privacy Act notice that is available via the link in the footer of <http://www.regulations.gov>.

Written comments and suggestions from the public and affected agencies should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including

whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.*, permitting electronic submission of responses.

**Overview of This Information Collection**

(1) *Type of Information Collection:* Revision of a currently approved collection.

(2) *Title of the Form/Collection:* Application for Asylum and for Withholding of Removal.

(3) *Agency form number, if any, and the applicable component of the DHS sponsoring the collection:* Form I–589; USCIS.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* Individuals or households. Form I–589 is necessary to determine whether an alien applying for asylum and/or withholding of removal in the United States is classified as refugee and is eligible to remain in the United States.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The estimated total number of respondents for the information collection I–589 is approximately 152,542 and the estimated hour burden per response is 12 hours per response; the estimated total number of respondents for the information collection I–589 (online filing) is approximately 50,837 and the estimated hour burden per response is 11 hours per response, and the estimated number of respondents providing biometrics is 197,278 and the estimated hour burden per response is 1.17 hours.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The total estimated annual hour burden associated with this collection is 2,620,526 hours.

(7) *An estimate of the total public burden (in cost) associated with the collection:* The estimated total annual cost burden associated with this collection of information is \$83,792,148.

Dated: May 12, 2023.

**Samantha L. Deshommes,**

*Chief, Regulatory Coordination Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security.*

[FR Doc. 2023–10956 Filed 5–22–23; 8:45 am]

**BILLING CODE 9111–97–P**

**DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**

**[BLM\_CO\_FRN\_MO4500171130]**

**Notice of Southwest Colorado Resource Advisory Council Public Meetings**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of public meetings.

**SUMMARY:** In accordance with the Federal Land Policy and Management Act of 1976 and the Federal Advisory Committee Act of 1972, the U.S. Department of the Interior, Bureau of Land Management (BLM) Colorado's Southwest Resource Advisory Council (RAC) will hold three public meetings in 2023 and early 2024.

**DATES:** The Southwest Colorado RAC will meet as follows:

- The RAC will host a field tour on June 14, 2023, at 8:30 a.m. Mountain Time (MT), and an in-person meeting on June 15, 2023, from 10 a.m. to 3:30 p.m. MT.
- The RAC will host a field tour on October 10, 2023, at 8:30 a.m. MT, and an in-person meeting on October 11, 2023, from 10 a.m. to 3:30 p.m. MT.
- The RAC will host a field tour on February 6, 2024, at 8:30 a.m. MT, and an in-person meeting on February 7, 2024, from 10 a.m. to 3:30 p.m. MT.

All meetings will also have a virtual participation option.

**ADDRESSES:**

- The June 14, 2023, field tour will commence at the Uncompahgre Field Office, 2465 S. Townsend Ave., Montrose, CO 81401. Attendees will travel to the Gunnison Forks Day Use Area boat ramp for a float trip in Gunnison Gorge National Conservation Area. The field tour will conclude at the Orchard Boat Ramp. The June 15 meeting will be held at the Uncompahgre Field Office.

- The October 10, 2023, field tour will commence and conclude at 1428 Greene Street, Suite 101, Silverton, CO 81433. Attendees will travel to view BLM trail systems near the Town of Silverton. The October 11 meeting will be held at the Gunnison Field Office,

2500 E. New York Ave., Gunnison, CO 81230.

- The February 6, 2024, field tour will commence and conclude at the Canyons of the Ancients Visitor Center and Museum, 27501 Highway 184, Dolores, CO 81323. The February 7 meeting will be held at the Tres Rios Field Office, 29211 State Highway CO-184, Dolores, CO 81323.

**FOR FURTHER INFORMATION CONTACT:** D. Maggie Magee, Public Affairs Specialist; BLM Southwest District Office, 2465 S. Townsend Ave., Montrose, CO 81401; telephone: (970) 240-5323; email: [dmagee@blm.gov](mailto:dmagee@blm.gov). Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services for contacting D. Maggie Magee. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:** The 15-member RAC advises the Secretary of the Interior, through the BLM, on a variety of public land issues in the Southwest District, which consists of the Gunnison, Tres Rios, and Uncompahgre field offices.

The RAC will conduct a float trip on the Gunnison River on June 14, 2023, putting in at the Gunnison Forks Day Use Area and taking out at the Orchard Boat Ramp. Planned agenda items for the June 15, 2023, meeting at the Uncompahgre Field Office include field manager updates, the election of a RAC chairperson, and recreation-related discussions.

The RAC will conduct a field tour on October 10, 2023, to view BLM trail systems near the Town of Silverton. Planned agenda items for the October 11, 2023, meeting at the Gunnison Field Office include field manager updates, recommendations by the RAC's Sheep Grazing Subcommittee to the full RAC regarding domestic sheep grazing in bighorn sheep habitat, and further discussion of trail issues identified during the field tour.

Depending on weather conditions, the RAC will conduct a field tour on February 6, 2024, to view feral horses in Canyons of the Ancients National Monument or tour curation facilities at Canyons of the Ancients Visitor Center and Museum. Planned agenda items for the February 7, 2024, meeting at the Tres Rios Field Office include field manager updates and discussions on livestock grazing allotments.

All meetings are open to the public. Participants wishing to attend virtually must register in advance. Registration, participation information, and final agendas will be posted on the RAC web page at <https://www.blm.gov/get-involved/resource-advisory-council/near-you/colorado/southwest-rac>.

All field tours are open to the public. Group size for field tours may be limited. Members of the public planning to attend field tours must provide their own meals and transportation, including watercraft and shuttles, and must RSVP 1 week in advance to the Southwest District contact listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice. Please make requests in advance for sign language interpreter services, assistive listening devices, or other reasonable accommodations. We ask that you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice at least seven (7) business days prior to the meeting to give the BLM sufficient time to process your request. All reasonable accommodation requests are managed on a case-by-case basis.

A 30-minute public comment period is scheduled for 2:30 p.m. during each of the meetings. Depending on the number of people who wish to comment during the public comment period, time for individual comments may be limited. Written comments may be submitted in advance to the contact listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice. Comments received at least 1 week in advance of the meeting will be provided to RAC members prior to the meeting. Please include "RAC Comment" in your submission.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Detailed summary minutes of the RAC meetings will be maintained in the Southwest District Office and will be available for public inspection and reproduction during regular business hours within 90 days following the meeting. Minutes and agendas are also available on the RAC's web page.

(Authority: 43 CFR 1784.4-2)

**Douglas J. Vilsack,**  
BLM Colorado State Director.

[FR Doc. 2023-10976 Filed 5-22-23; 8:45 am]

**BILLING CODE 4331-16-P**

## DEPARTMENT OF THE INTERIOR

### National Park Service

[NPS-MWR-SLBE-34899;  
PS.SMWLA0058.00.1]

### Minor Boundary Revision at Sleeping Bear Dunes National Lakeshore

**AGENCY:** National Park Service, Interior.

**ACTION:** Notification of boundary revision.

**SUMMARY:** Notice is hereby given that the boundary of Sleeping Bear Dunes National Lakeshore (National Lakeshore) is modified to include Tracts 40-177 and 40-178, containing 8.66 acres, more or less, located in Leelanau County, Michigan, adjacent to the National Lakeshore boundary. Subsequent to the boundary revision, the National Park Service (NPS) will acquire the properties from Leelanau Conservancy, a non-profit organization.

**DATES:** The effective date of this boundary revision is May 23, 2023.

**ADDRESSES:** The map depicting the boundary revision is available for inspection at the following locations: National Park Service, Interior Regions 3, 4, 5, Land Resources Program, 601 Riverfront Drive, Omaha, Nebraska 68102 and National Park Service, Department of the Interior, 1849 C Street NW, Washington, DC 20240.

**FOR FURTHER INFORMATION CONTACT:** Chief, Land Resources Program Michael Bockman, National Park Service, Interior Regions 3, 4, 5, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone (402) 661-1780.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that, pursuant to 54 U.S.C. 100506(c), the boundary of Sleeping Bear Dunes National Lakeshore is modified to include two adjacent tracts containing approximately 8.66 acres of land. The boundary revision is depicted on Map No. 634/178243, November 2022.

54 U.S.C. 100506(c)(1)(B) provides that, after notifying the House Committee on Natural Resources and the Senate Committee on Energy and Natural Resources, the Secretary of the Interior is authorized to make this boundary revision upon publication of Notice in the **Federal Register**. The Committees have been notified of this boundary revision. This boundary



revision and subsequent acquisition will ensure preservation and protection of the scenic character and viewshed of the National Lakeshore and improve visitor recreational access.

**Herbert C. Frost,**

*Regional Director, Interior Regions 3, 4, 5.*

[FR Doc. 2023-10952 Filed 5-22-23; 8:45 am]

**BILLING CODE 4312-52-P**

**DEPARTMENT OF JUSTICE**

**Federal Bureau of Investigation**

[Docket No. FBI-160]

**FBI Information Management Division, Enterprise Vetting Center User Fee Schedule**

**AGENCY:** Federal Bureau of Investigation (FBI), Department of Justice.

**ACTION:** Notice.

**SUMMARY:** This notice establishes a revised user fee for federal agencies requesting name-based, non-criminal justice background checks of the FBI's Central Records System through the Enterprise Vetting Center (EVC), formally known as the National Name Check Program (NNCP). The total resource costs associated with providing name check services have been calculated to ensure full reimbursement to the FBI ("cost reimbursement portion" of the fee). The FBI is also authorized to charge an additional amount to defray costs required to update and improve the EVC's technological infrastructure, which

supports the automation of processes involving name-based background checks ("automation portion" of the fee). This notice explains the methodology used to calculate revised fees and also provides the updated fee schedule. In addition, and in conjunction with the revised fee for the name-based checks, this notice also establishes an interim monthly fee for Continuous Vetting (CV) checks.

**DATES:** This fee schedule is effective July 1st, 2023.

**FOR FURTHER INFORMATION CONTACT:** Mr. Karl R. Schumann, Section Chief, Enterprise Vetting Center, Information Management Division, FBI, 200 Constitution Drive, Winchester, Virginia 22602.

**SUPPLEMENTARY INFORMATION:** On June 7, 2010, the FBI published the Final Rule (75 FR 24796) setting forth the FBI Director's authority to establish and collect fees for providing name-based background checks conducted by the EVC of the Information Management Division (IMD), formally known as the NNCP. The Final Rule explains the methodology used to calculate the fees and provides that future fee adjustments will be made by a notice published in the **Federal Register**. Pursuant to the authority in Public Law (Pub. L.) 101-515 and in accordance with the requirements of 28 CFR 20.31(e), the FBI is required to periodically review the amount it collects for the EVC to determine the current cost of processing name checks for non-criminal justice purposes.

The FBI is also authorized by the Final Rule to use the same methodology in determining the cost and developing fees for new services that perform name checks for non-criminal justice purposes. IMD consistently applied the same methodology to establish an interim monthly fee for CV, which is a personnel security investigative process that continuously monitors FBI record holdings for information pertaining to individuals for which a name-based check was completed. The FBI's federal partners, upon enrolling their personnel in the service, will receive relevant updates in a more rapid manner as they incur a monthly charge for each enrolled employee.

**Name-Based Fee**

An independent user fee study was conducted in accordance with 28 CFR 20.31(e)(2) to determine if the current user fees published in the **Federal Register** on December 30th, 2019 (84 FR 71978) required adjustments due to either increases or decreases in costs since the user fees became effective on February 1st, 2020. The user fee analysis performed in 2022 determined that the cost-reimbursement portion of name-based checks increased by \$2.25 while the automation portion remained consistent with the current name check user fees. The following table details the revised fee amounts for authorized users requesting name-based checks for noncriminal purposes, including the difference from the fee schedule currently in effect:

**NAME-BASED CHECKS**

Service	Current fee	Change in fee amount	Revised fee
Name-Based Checks .....	\$19.25	\$2.25	\$21.50
Automation .....	2.00	0.00	2.00
<b>Total Fee .....</b>	<b>21.25</b>	<b>2.25</b>	<b>23.50</b>

This revised fee, of \$23.50 per check, will become effective on July 1st, 2023.

**Continuous Vetting (CV) Interim Fee**

A secondary independent user fee study was conducted in keeping with 28 CFR 20.31(e)(2) and utilized the best available information to determine the costs associated with providing CV services on a monthly basis for enrolled personnel. A CV pilot was performed in Fiscal Year 2022 with an FBI federal partner to create an initial assessment for the costs required to provide monitoring support. Through this pilot assessment, IMD determined that the

monthly cost-reimbursement rate was \$0.25 per enrolled individual. The following table details the new fee amount for authorized users requesting CV checks for noncriminal purposes:

**CV CHECKS**

[Monthly subscription amount]

Service	New fee
CV Checks .....	\$0.25
Automation .....	0.00
<b>Total Fee .....</b>	<b>0.25</b>

This new fee, of \$0.25 per month/per submission, will become effective on July 1st, 2023.

**Christopher A. Wray,**

*Director, Federal Bureau of Investigation.*

[FR Doc. 2023-10902 Filed 5-22-23; 8:45 am]

**BILLING CODE 4410-02-P**

**DEPARTMENT OF JUSTICE****[CPCLO Order No. 001–2023]****Privacy Act of 1974; System of Records**

**AGENCY:** Office of Privacy and Civil Liberties, United States Department of Justice.

**ACTION:** Notice of a new system of records.

**SUMMARY:** Pursuant to the Privacy Act of 1974 and Office of Management and Budget (OMB) Circular No. A–108, notice is hereby given that the Office of Privacy and Civil Liberties (hereinafter OPCL), a component within the United States Department of Justice (DOJ or Department), proposes to develop a new system of records titled Data Protection Review Court Records System, JUSTICE/OPCL–001. The OPCL proposes to establish this system of records to maintain records of matters reviewed by and decisions made by the Data Protection Review Court (DPRC) concerning determinations made by the Civil Liberties Protection Officer of the Office of the Director of National Intelligence in response to complaints that allege certain violations of United States law in the conduct of United States signals intelligence activities.

**DATES:** In accordance with 5 U.S.C. 552a(e)(4) and (11), this notice is effective upon publication, subject to a 30-day period in which to comment on the routine uses, described below. Please submit any comments by June 22, 2023.

**ADDRESSES:** The public, OMB, and Congress are invited to submit any comments by mail to the United States Department of Justice, Office of Privacy and Civil Liberties, ATTN: Privacy Analyst, Two Constitution Square, 145 N St. NE, Suite 8W–300, Washington, DC 20530; by facsimile at 202–307–0693; or by email at [privacy.compliance@usdoj.gov](mailto:privacy.compliance@usdoj.gov). To ensure proper handling, please reference the above CPCLO Order No. on your correspondence.

**FOR FURTHER INFORMATION CONTACT:** Katherine Harman-Stokes, Director (Acting), Office of Privacy and Civil Liberties, U.S. Department of Justice, Two Constitution Square, 145 N St. NE, Suite 8W–300, Washington, DC 20530; email, [privacy.compliance@usdoj.gov](mailto:privacy.compliance@usdoj.gov); telephone: (202) 514–0208; facsimile (202) 307–0693.

**SUPPLEMENTARY INFORMATION:** On October 7, 2022, the President of the United States issued Executive Order (E.O.) 14086, Enhancing Safeguards for United States Signals Intelligence

Activities, 87 FR 62283 (Oct. 14, 2022), which directed the Attorney General to establish the DPRC as the second level of a two-level redress mechanism for alleged violations of law regarding signals intelligence activities. The Attorney General issued a regulation on October 7, 2022, now at 28 CFR 201, “Data Protection Review Court.” 87 FR 628303 (Oct. 14, 2022).

The redress mechanism will provide for the review of complaints submitted by individuals through their designated public authorities in designated countries and regional economic integration organizations, alleging certain violations of United States law concerning United States signals intelligence activities covered in E.O. 14086 (“covered violation”). The E.O. 14086 implements commitments made by the United States as part of the EU–U.S. Data Privacy Framework announced in March 2022 to foster trans-Atlantic data flows.

The first level of the new redress mechanism established by E.O. 14086 is the investigation and review of complaints by the Office of the Director of National Intelligence Civil Liberties Protection Officer (ODNI CLPO). The ODNI CLPO will conduct an initial review of the complaint to assess whether it meets the requirements necessary for a redress review pursuant to E.O. 14086, *i.e.*, whether the complaint is a “qualifying complaint.” Upon confirming a complaint is qualified, the ODNI CLPO will determine whether a covered violation occurred, and, where necessary, the appropriate remediation. As a second level, the complainant or an element of the Intelligence Community, as defined in E.O. 14086 section 4(g), may seek review by the DPRC of the ODNI CLPO’s determination.

The DPRC has been established within the Department, it and will consist of individuals chosen as judges and “special advocates” from outside the Executive Branch of the United States Government to provide independent and impartial adjudication of applications for review of determinations of the ODNI CLPO described above. Exercising the Attorney General’s delegated authority under 28 U.S.C. 511 and 512 to provide advice and opinion on questions of law, as well as the authority of the DPRC under E.O. 14086, the DPRC will review whether the ODNI CLPO’s determination regarding the occurrence of a covered violation was legally correct and supported by substantial evidence and whether, in the event of a covered violation, the ODNI CLPO’s determination as to the appropriate

remediation was consistent with E.O. 14086 or other applicable laws. Each application will be reviewed by a three-judge panel of the DPRC convened by the Department’s Office of Privacy and Civil Liberties (OPCL), which will provide administrative support to the DPRC.

The regulations require the DPRC and OPCL, in support of the DPRC, to maintain records of the DPRC’s activities. For each application for review, OPCL will maintain all records pertaining to the DPRC’s review, including submissions from the complainant, the Special Advocate, or an element of the intelligence community. 28 CFR 201.9(j), *see also* 28 CFR 201.5, *et seq.*

Pursuant to 28 CFR 201.9(i), certain classified information in the system indicating a violation of any authority subject to the oversight of the Foreign Intelligence Surveillance Court (“FISC”) will be shared with the Assistant Attorney General for National Security, who shall report violations to the FISC as required by law and in accordance with its rules of procedure. Similarly, information in the system will be accessible to the Privacy and Civil Liberties Oversight Board (“PCLOB”) as necessary to conduct the annual review of the redress process described in section 3(e) of E.O. 14086, consistent with the protection of intelligence sources and methods.

In accordance with 5 U.S.C. 552a(r), the Department has provided a report to OMB and Congress on this new system of records.

Dated: May 10, 2023.

**Peter A. Winn,**

*Chief Privacy and Civil Liberties Officer (Acting), United States Department of Justice.*

**JUSTICE/OPCL–001****SYSTEM NAME AND NUMBER:**

Data Protection Review Court Records System, JUSTICE/OPCL–001.

**SECURITY CLASSIFICATION:**

The majority of information in this system of records is classified. The remaining information is sensitive but unclassified.

**SYSTEM LOCATION:**

United States Department of Justice, 950 Pennsylvania Ave. NW, Washington, DC 20530–0001.

**SYSTEM MANAGER(S):**

Director, Office of Privacy and Civil Liberties, U.S. Department of Justice, Two Constitution Square, 145 N St. NE, Suite 8W–300, Washington, DC 20530; email, [privacy.compliance@usdoj.gov](mailto:privacy.compliance@usdoj.gov);

telephone: (202) 514-0208; facsimile (202) 307-0693.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Authority for maintaining this system exists under 5 U.S.C. 301; 28 U.S.C. 509, 510-512; 28 CFR 0.72; 28 CFR part 201; Executive Order 14086 and other applicable executive order(s) governing foreign intelligence surveillance and classified national security information.

**PURPOSE(S) OF THE SYSTEM:**

The purpose of the system is to maintain records of the information received, reviewed, or created by the DPRC for each application for review and decision of a DPRC panel handling a specific matter; to make records available for consideration as non-binding precedent to future panels of the DPRC; to provide reports, when appropriate, to the Assistant Attorney General for National Security, other relevant DOJ officials, and members of the Intelligence Community; for related litigation, if applicable; to provide information to the PCLOB as necessary to conduct the annual review of the redress process described in section 3(e) of E.O. 14086; for DPRC personnel, and OPCL personnel supporting the DPRC, to prepare, process and track applications for review and perform other functions as needed.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individual complainants seeking review pursuant to E.O. 14086 and Department of Justice regulation 28 CFR 201 of an Office of the Director of National Intelligence Civil Liberties Protection Officer (ODNI CLPO) determination in response to qualifying complaints; individuals who did not submit a qualifying complaint but who are identified in connection with the qualifying complaint, including for example, the individual complainant's counsel, if any, and personnel with the public authority of a designated state; members of the United States Government workforce, including personnel of elements of the Intelligence Community involved in investigating and reviewing complaints or involved in signals intelligence activities related to a complaint, and individuals serving as Judges on the DPRC or Special Advocates.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

The system consists of all records relating to applications for review of an ODNI CLPO determination in response to complaints submitted through the redress mechanism established pursuant to section 3 of E.O. 14086; including all information received, reviewed, and

created by the DPRC in the adjudication of an application for review; the decisions of the DPRC; and records created and maintained for administrative or operational purposes for the DPRC. This also includes the records received from, generated by, or about, ODNI CLPO, elements of the Intelligence Community, the complainant and counsel through the public authority of a qualifying state, and from the Special Advocates. The records in this system also include communications between ODNI CLPO, DPRC Judges and Special Advocates, PCLOB, public authority in the designated country or regional economic integration organization, the complainant, and OPCL personnel supporting the DPRC. The system will also contain records related to the appointment of DPRC Judges and Special Advocates, DPRC's rules of procedures and processes for filing an application for review, and other administrative or operational records.

**RECORD SOURCE CATEGORIES:**

The system contains records that originated from Department of Justice personnel involved in the administration of the DPRC and the implementation and execution of the two-level redress mechanism described in E.O. 14086, and records originating from ODNI, PCLOB, elements of the Intelligence Community, the complainant and counsel, DPRC Judges and Special Advocates, and the public authority of a designated country or regional economic integration organization.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b), all or a portion of the records or information contained in this system of records may be disclosed for the purposes described below, to the extent such disclosures are compatible with the purposes for which the information was collected:

A. To any person or entity that the Department has reason to believe possesses information regarding a matter within the jurisdiction of the DPRC, to the extent deemed to be necessary by the DPRC or OPCL in order to elicit such information or cooperation from the recipient for use in the performance of an authorized activity.

B. Where a record, either alone or in conjunction with other information, indicates a violation or potential violation of law—criminal, civil, or regulatory in nature—the relevant

records may be referred to the appropriate Federal, State, local, Territorial, Tribal, or foreign law enforcement authority or other appropriate entity charged with the responsibility for investigating or prosecuting such violation or charged with enforcing or implementing such law.

C. In an appropriate proceeding before a court, grand jury, or administrative or adjudicative body, when the Department determines that the records are relevant to the proceeding in accordance with applicable laws, rules, and Department policies.

D. To the news media and the public, including disclosures pursuant to 28 CFR 50.2, unless it is determined that release of the specific information in the context of a particular case would constitute an unwarranted invasion of personal privacy, with the concurrence of the Department's Chief Privacy and Civil Liberties Officer.

E. To contractors, grantees, experts, consultants, students, and others performing or working on a contract, service, grant, cooperative agreement, or other assignment for the Federal Government, when necessary to accomplish an agency function related to this system of records.

F. To a former employee of the Department for purposes of: responding to an official inquiry by a Federal, State, or local government entity or professional licensing authority, in accordance with applicable Department regulations; or facilitating communications with a former employee that may be necessary for personnel-related or other official purposes where the Department requires information and/or consultation assistance from the former employee regarding a matter within that person's former area of responsibility.

G. To a Member of Congress or staff acting upon the Member's behalf when the Member or staff requests the information on behalf of, and at the request of, the individual who is the subject of the record, whether the individual is residing in the United States or abroad at the time of the request.

H. To the National Archives and Records Administration for purposes of records management inspections conducted under the authority of 44 U.S.C. 2904 and 2906.

I. To appropriate agencies, entities, and persons when (1) the Department suspects or has confirmed that there has been a breach of the system of records; (2) the Department has determined that as a result of the suspected or confirmed breach there is a risk of harm to

individuals, the Department (including its information systems, programs, and operations), the Federal Government, or national security; and (3) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the Department's efforts to respond to the suspected or confirmed breach or to prevent, minimize, or remedy such harm.

J. To another Federal agency or entity, when the Department determines that information from this system of records is reasonably necessary to assist the recipient agency or entity in (1) responding to a suspected or confirmed breach, or (2) preventing, minimizing, or remedying the risk of harm to individuals, the recipient agency or entity (including its information systems, programs, and operations), the Federal Government, or national security, resulting from a suspected or confirmed breach.

K. To any agency, organization, or individual for the purpose of performing authorized audit or oversight operations of the DPRC or OPCL and meeting related reporting requirements.

L. To such recipients and under such circumstances and procedures as are mandated by Federal statute or treaty.

#### **POLICIES AND PRACTICES FOR STORAGE OF RECORDS:**

Records in this system are stored on paper and/or in electronic form. Records are stored securely in accordance with applicable laws, regulations, and policies. Records that contain classified national security information are stored in accordance with applicable executive orders, statutes, and agency implementing regulations.

#### **POLICIES AND PRACTICES FOR RETRIEVAL OF RECORDS:**

Information is retrieved by the unique case number assigned to the application for review, the name of the complainant, the public authority that submitted the complaint for the complainant, or the designated country or regional economic integration organization.

#### **POLICIES AND PRACTICES FOR RETENTION AND DISPOSAL OF RECORDS:**

Records in this system are maintained and disposed of in accordance with all applicable statutory and regulatory requirements.

#### **ADMINISTRATIVE, TECHNICAL, AND PHYSICAL SAFEGUARDS:**

Information in this system in electronic or hard copy form is subject to administrative, technical, and physical safeguards in accordance with applicable laws, rules, and policies, including the Department's automated

systems security and access policies. Classified information is appropriately stored in safes and on secure servers in accordance with other applicable requirements. Records and technical equipment are maintained in a secured area with restricted access. Internet connections are protected by multiple firewalls and data is encrypted in accordance with applicable laws, rules, and Department policies. Security personnel conduct periodic vulnerability scans using DOJ-approved software to ensure security compliance and security logs are enabled for computers to assist in troubleshooting and forensics analysis during incident investigations. Users of individual computers can only gain access to data through a multi-factor authentication process; direct access to certain information is restricted depending on a user's role and responsibility within the organization and system.

#### **RECORD ACCESS PROCEDURES:**

A major part of this system is exempted from this requirement; specifically, this system is exempt from Privacy Act subsections (c)(3) and (4); (d); (e)(1), (2), (3), (4)(G), (H) and (I), (5) and (8); (f); (g); and (h) of the Privacy Act pursuant to 5 U.S.C. 552a(j)(2), (k)(1), (2), and (5). An individual who is the subject of a record in this system of records may access those records that are not exempt from access. A determination as to exemption shall be made at the time a request for access is received. A request for access to records contained in this system shall be made in writing and clearly marked "Privacy Act Access Request." The request should include the full name of the individual involved, the individual's current address, date and place of birth, and their signature which shall be notarized or made pursuant to 28 U.S.C. 1746 as an unsworn declaration. The request must describe the records sought in sufficient detail to enable Department personnel to locate them with a reasonable amount of effort. Requests should be directed to the Office of Information Policy. See <https://www.justice.gov/oip/make-foia-request-doj>.

Although no specific form is required, you may obtain forms for this purpose from the FOIA/Privacy Act Mail Referral Unit, United States Department of Justice, 950 Pennsylvania Avenue NW, Washington, DC 20530, or on the Department of Justice website at <https://www.justice.gov/oip/oip-request.html>.

More information regarding the Department's procedures for accessing records in accordance with the Privacy Act can be found at 28 CFR part 16

subpart D, "Protection of Privacy and Access to Individual Records Under the Privacy Act of 1974."

#### **CONTESTING RECORD PROCEDURES:**

Individuals seeking to contest or amend records maintained in this system of records must direct their requests to the address indicated in the "RECORD ACCESS PROCEDURES" section, above. All requests to contest or amend records must be in writing and clearly marked "Privacy Act Amendment Request." All requests must state clearly and concisely what record is being contested, the reasons for contesting it, and the proposed amendment to the record. Some information may be exempt from the amendment provisions as described in the "EXEMPTIONS PROMULGATED FOR THE SYSTEM" section, below. An individual who is the subject of a record in this system of records may contest or amend those records that are not exempt. A determination of whether a record is exempt from the amendment provisions will be made after a request is received.

More information regarding the Department's procedures for amending or contesting records in accordance with the Privacy Act can be found at 28 CFR 16.46, "Requests for Amendment or Correction of Records."

#### **NOTIFICATION PROCEDURES:**

Individuals may be notified if a record in this system of records pertains to them when the individuals request information utilizing the same procedures as those identified in the "RECORD ACCESS PROCEDURES" section, above.

#### **EXEMPTIONS PROMULGATED FOR THE SYSTEM:**

The Attorney General has exempted this system from subsections (c)(3) and (4); (d); (e)(1), (2), (3), (4)(G), (H) and (I), (5) and (8); (f); (g); and (h) of the Privacy Act pursuant to 5 U.S.C. 552a(j)(2), (k)(1), (2), and (5). Rules are in the process of being promulgated in accordance with the requirements of 5 U.S.C. 553(b), (c) and (e), and are in the process of being published in the **Federal Register**. These exemptions apply only to the extent that information in the system is subject to exemption pursuant to 5 U.S.C. 552a(j)(2), (k)(1), (2) or (5). A determination as to exemption shall be made at the time a request for access or amendment is received.

#### **HISTORY:**

None.

[FR Doc. 2023-10524 Filed 5-22-23; 8:45 am]

**BILLING CODE 4410-PJ-P**

**DEPARTMENT OF LABOR****Agency Information Collection Activities; Submission for OMB Review; Comment Request; Certification by School Official**

**ACTION:** Notice of availability; request for comments.

**SUMMARY:** The Department of Labor (DOL) is submitting this Office of Workers' Compensation Programs (OWCP)-sponsored information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (PRA). Public comments on the ICR are invited.

**DATES:** The OMB will consider all written comments that the agency receives on or before June 22, 2023.

**ADDRESSES:** Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under 30-day Review—Open for Public Comments" or by using the search function.

*Comments are invited on:* (1) whether the collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; (2) the accuracy of the agency's estimates of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collection; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

**FOR FURTHER INFORMATION CONTACT:** Nicole Bouchet by telephone at 202-693-0213, or by email at [DOL\\_PRA\\_PUBLIC@dol.gov](mailto:DOL_PRA_PUBLIC@dol.gov).

**SUPPLEMENTARY INFORMATION:** The OWCP Form CM-981 is completed by a school official to verify whether a Black Lung beneficiary's dependent, aged 18 to 23, qualifies as a full-time student. For additional substantive information about this ICR, see the related notice published in the **Federal Register** on January 31, 2022 (88 FR 6314).

This information collection is subject to the PRA. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an

information collection, unless the OMB approves it and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information that does not display a valid OMB Control Number. See 5 CFR 1320.5(a) and 1320.6.

DOL seeks PRA authorization for this information collection for three (3) years. OMB authorization for an ICR cannot be for more than three (3) years without renewal. The DOL notes that information collection requirements submitted to the OMB for existing ICRs receive a month-to-month extension while they undergo review.

*Agency:* DOL-OWCP.

*Title of Collection:* Extension.

*OMB Control Number:* 1240-0031.

*Affected Public:* State, Local, and Tribal Governments.

*Total Estimated Number of Respondents:* 93.

*Total Estimated Number of Responses:* 93.

*Total Estimated Annual Time Burden:* 16 hours.

*Total Estimated Annual Other Costs Burden:* \$53.00.

(Authority: 44 U.S.C. 3507(a)(1)(D))

**Nicole Bouchet,**

*Senior PRA Analyst.*

[FR Doc. 2023-10881 Filed 5-22-23; 8:45 am]

**BILLING CODE 4510-26-P**

**DEPARTMENT OF LABOR****Occupational Safety and Health Administration****Susan Harwood Training Grant Program, FY 2023; Availability of Funds and Funding Opportunity Announcements**

**AGENCY:** Occupational Safety and Health Administration (OSHA), Labor.

**ACTION:** Notice of availability of funds and funding opportunity announcements.

**SUMMARY:** This notice announces availability of \$12,787,000 for Susan Harwood Training Grant Program grants. Three separate funding opportunity announcements are available for Targeted Topic Training grants, Training and Educational Materials Development grants, and two types of new Capacity Building grants: Capacity Building Pilot and Capacity Building Developmental grants.

**DATES:** Grant applications for Susan Harwood Training Program grants must be received electronically by the

*Grants.gov* system no later than 11:59 p.m., ET, on July 7, 2023.

**ADDRESSES:** The complete Susan Harwood Training Grant Program funding opportunity announcements and all information needed to apply are available at the *Grants.gov* website, [www.grants.gov](http://www.grants.gov).

**FOR FURTHER INFORMATION CONTACT:**

Questions regarding the funding opportunity announcement should be emailed to Monica McKenzie at [HarwoodGrants@dol.gov](mailto:HarwoodGrants@dol.gov) or directed to OSHA via telephone at 847-725-7805. Personnel will not be available to answer questions after 5:00 p.m., ET. To obtain further information on the Susan Harwood Training Grant Program, visit the OSHA website at [www.osha.gov/harwoodgrants](http://www.osha.gov/harwoodgrants). Questions regarding *Grants.gov* should be emailed to [Support@grants.gov](mailto:Support@grants.gov) or directed to Applicant Support toll free at 1-800-518-4726. Applicant Support is available 24 hours a day, 7 days a week except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

*Funding Opportunity Number:* SHTG-FY-23-01 (Targeted Topic Training grants)

*Funding Opportunity Number:* SHTG-FY-23-02 (Training and Educational Materials Development grants)

*Funding Opportunity Number:* SHTG-FY-23-03 (Capacity Building grants)

*Catalog of Federal Domestic Assistance Number:* 17.502

**Authority and Signature**

James S. Frederick, Deputy Assistant Secretary of Labor for Occupational Safety and Health, directed the preparation of this notice. The authority for this notice is Section 21 of the Occupational Safety and Health Act of 1970, (29 U.S.C. 670), Public Law 117-328, and Secretary of Labor's Order No. 8-2020 (85 FR 58393, September 18, 2020).

Signed at Washington, DC, on May 16, 2023.

**James S. Frederick,**

*Deputy Assistant Secretary of Labor for Occupational Safety and Health.*

[FR Doc. 2023-10882 Filed 5-22-23; 8:45 am]

**BILLING CODE 4510-26-P**

**NATIONAL ARCHIVES AND RECORDS ADMINISTRATION**

[NARA-23-0007; NARA-2023-031]

**Records Schedules; Availability and Request for Comments**

**AGENCY:** National Archives and Records Administration (NARA).

**ACTION:** Notice of availability of proposed records schedules; request for comments.

**SUMMARY:** The National Archives and Records Administration (NARA) publishes notice of certain Federal agency requests for records disposition authority (records schedules). We publish notice in the **Federal Register** and on *regulations.gov* for records schedules in which agencies propose to dispose of records they no longer need to conduct agency business. We invite public comments on such records schedules.

**DATES:** We must receive responses on the schedules listed in this notice by July 10, 2023.

**ADDRESSES:** To view a records schedule in this notice, or submit a comment on one, use the following address: <https://www.regulations.gov/docket/NARA-23-0007/document>. This is a direct link to the schedules posted in the docket for this notice on *regulations.gov*. You may submit comments by the following method:

- **Federal eRulemaking Portal:** <https://www.regulations.gov>. On the website, enter either of the numbers cited at the top of this notice into the search field. This will bring you to the docket for this notice, in which we have posted the records schedules open for comment. Each schedule has a ‘comment’ button so you can comment on that specific schedule. For more information on *regulations.gov* and on submitting comments, see their FAQs at <https://www.regulations.gov/faq>.

If you are unable to comment via *regulations.gov*, you may email us at [request.schedule@nara.gov](mailto:request.schedule@nara.gov) for instructions on submitting your comment. You must cite the control number of the schedule you wish to comment on. You can find the control number for each schedule in parentheses at the end of each schedule’s entry in the list at the end of this notice.

**FOR FURTHER INFORMATION CONTACT:** Eddie Germino, Strategy and Performance Division, by email at [regulation\\_comments@nara.gov](mailto:regulation_comments@nara.gov) or at 301-837-3758. For information about records schedules, contact Records Management Operations by email at [request.schedule@nara.gov](mailto:request.schedule@nara.gov) or by phone at 301-837-1799.

**SUPPLEMENTARY INFORMATION:**

**Public Comment Procedures**

We are publishing notice of records schedules in which agencies propose to dispose of records they no longer need to conduct agency business. We invite

public comments on these records schedules, as required by 44 U.S.C. 3303a(a), and list the schedules at the end of this notice by agency and subdivision requesting disposition authority.

In addition, this notice lists the organizational unit(s) accumulating the records or states that the schedule has agency-wide applicability. It also provides the control number assigned to each schedule, which you will need if you submit comments on that schedule.

We have uploaded the records schedules and accompanying appraisal memoranda to the *regulations.gov* docket for this notice as “other” documents. Each records schedule contains a full description of the records at the file unit level as well as their proposed disposition. The appraisal memorandum for the schedule includes information about the records.

We will post comments, including any personal information and attachments, to the public docket unchanged. Because comments are public, you are responsible for ensuring that you do not include any confidential or other information that you or a third party may not wish to be publicly posted. If you want to submit a comment with confidential information or cannot otherwise use the *regulations.gov* portal, you may contact [request.schedule@nara.gov](mailto:request.schedule@nara.gov) for instructions on submitting your comment.

We will consider all comments submitted by the posted deadline and consult as needed with the Federal agency seeking the disposition authority. After considering comments, we may or may not make changes to the proposed records schedule. The schedule is then sent for final approval by the Archivist of the United States. After the schedule is approved, we will post on *regulations.gov* a “Consolidated Reply” summarizing the comments, responding to them, and noting any changes we made to the proposed schedule. You may elect at *regulations.gov* to receive updates on the docket, including an alert when we post the Consolidated Reply, whether or not you submit a comment. If you have a question, you can submit it as a comment, and can also submit any concerns or comments you would have to a possible response to the question. We will address these items in consolidated replies along with any other comments submitted on that schedule.

We will post schedules on our website in the Records Control Schedule (RCS) Repository, at <https://www.archives.gov/records-mgmt/rcs>,

after the Archivist approves them. The RCS contains all schedules approved since 1973.

**Background**

Each year, Federal agencies create billions of records. To control this accumulation, agency records managers prepare schedules proposing retention periods for records and submit these schedules for NARA’s approval. Once approved by NARA, records schedules provide mandatory instructions on what happens to records when no longer needed for current Government business. The records schedules authorize agencies to preserve records of continuing value in the National Archives or to destroy, after a specified period, records lacking continuing administrative, legal, research, or other value. Some schedules are comprehensive and cover all the records of an agency or one of its major subdivisions. Most schedules, however, cover records of only one office or program or a few series of records. Many of these update previously approved schedules, and some include records proposed as permanent.

Agencies may not destroy Federal records without the approval of the Archivist of the United States. The Archivist grants this approval only after thorough consideration of the records’ administrative use by the agency of origin, the rights of the Government and of private people directly affected by the Government’s activities, and whether or not the records have historical or other value. Public review and comment on these records schedules is part of the Archivist’s consideration process.

**Schedules Pending**

1. Department of the Army, Agency-wide, Test Measurement and Diagnostic Equipment Records (DAA-AU-2021-0010).

2. Department of Homeland Security, Office of the Immigration Detention Ombudsman, Records of the Office of the Immigration Detention Ombudsman (DAA-0563-2022-0002).

3. Department of Homeland Security, U.S. Citizenship and Immigration Services, Certificates of Nonexistence (DAA-0566-2022-0006).

**Laurence Brewer,**

*Chief Records Officer for the U.S. Government.*

[FR Doc. 2023-10888 Filed 5-22-23; 8:45 am]

**BILLING CODE 7515-01-P**

## NATIONAL CREDIT UNION ADMINISTRATION

### Sunshine Act Meetings

**TIME AND DATE:** 10:00 a.m., Thursday, May 25, 2023.

**PLACE:** Board Room, 7th Floor, Room 7B, 1775 Duke Street (All visitors must use Diagonal Road Entrance), Alexandria, VA 22314-3428.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:**

1. Board Briefing, Share Insurance Fund Quarterly Report
2. NCUA Rules and Regulations, Charitable Donation Accounts

**FOR FURTHER INFORMATION CONTACT:**

Melane Conyers-Ausbrooks, Secretary of the Board, Telephone: 703-518-6304.

**Melane Conyers-Ausbrooks,**

*Secretary of the Board.*

[FR Doc. 2023-10999 Filed 5-19-23; 4:15 pm]

**BILLING CODE 7535-01-P**

## NATIONAL SCIENCE FOUNDATION

### Committee on Equal Opportunities in Science and Engineering; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92-463, as amended), the National Science Foundation (NSF) announces the following meeting:

**NAME AND COMMITTEE CODE:** Committee on Equal Opportunities in Science and Engineering (CEOSE) (#1173).

**DATE AND TIME:**

June 15, 2023 at 1:00 p.m.–5:30 p.m.  
June 16, 2023 at 10:00 a.m.–3:45 p.m.

**PLACE:** National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA 22314 (Virtual).

**Meeting Registration:** Registration for the virtual meeting can be accessed at: [https://nsf.zoomgov.com/meeting/register/vJltfu6vqDopGHEM9-UpjwMQYZ4Gxc66\\_pE](https://nsf.zoomgov.com/meeting/register/vJltfu6vqDopGHEM9-UpjwMQYZ4Gxc66_pE).

**TYPE OF MEETING:** Open.

**CONTACT PERSON:** Dr. Bernice Anderson, Senior Advisor and CEOSE Executive Secretary, Office of Integrative Activities (OIA), National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA 22314. Contact Information: 703-292-8040/[banderso@nsf.gov](mailto:banderso@nsf.gov).

**MINUTES:** Meeting minutes and other information may be obtained from the CEOSE Executive Secretary at the above address or the website at <http://www.nsf.gov/od/oia/activities/ceose/index.jsp>.

**PURPOSE OF MEETING:** To study data, programs, policies, and other

information pertinent to the National Science Foundation and to provide advice and recommendations concerning broadening participation in science and engineering.

**AGENDA—CEOSE Agenda-at-a-Glance**

*Day 1: June 15, 2023*

- 1:00 p.m.–1:30 p.m. Opening, Welcome, Introductions  
1:30 p.m.–2:00 p.m. Presentation: Report of the CEOSE Executive Liaison  
2:00 p.m.–3:00 p.m. Discussion: NSB Merit Review Commission  
3:00 p.m.–3:15 p.m. Break  
3:15 p.m.–4:15 p.m. Presentation: Supporting Rural STEM Education and Research  
4:15 p.m.–5:30 p.m. Discussion: Reports of the CEOSE AC Liaisons

*Day 2: June 16, 2023*

- 10:00 a.m.–10:15 a.m. Opening Remarks  
10:15 a.m.–11:30 a.m. Discussion: 2021–2022 CEOSE Report and its Dissemination  
11:30 a.m.–12:00 p.m. Discussion: Topics to Share with NSF Senior Leadership  
12:00 p.m.–1:00 p.m. Lunch Break  
1:00 p.m.–1:30 p.m. Discussion with NSF Senior Leadership  
1:30 p.m.–2:30 p.m. DEAI Briefing  
2:30 p.m.–3:30 p.m. CEOSE Panel: Engaging Tribal/Indigenous Communities  
3:30 p.m.–3:45 p.m. Announcements, Closing Remarks, Adjournment

Dated: May 17, 2023.

**Crystal Robinson,**

*Committee Management Officer.*

[FR Doc. 2023-10914 Filed 5-22-23; 8:45 am]

**BILLING CODE 7555-01-P**

## NATIONAL SCIENCE FOUNDATION

### Sunshine Act Meetings

The National Science Board's (NSB) NSB-NSF Commission on Merit Review hereby gives notice of the scheduling of a videoconference meeting for the transaction of National Science Board business pursuant to the National Science Foundation Act and the Government in the Sunshine Act.

**TIME AND DATE:** Wednesday, May 24, 2023, from 12:00 p.m.–1:00 p.m. EDT.

**PLACE:** This meeting will be held by videoconference through the National Science Foundation.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** The agenda of the meeting is: Chair's opening remarks; ARIS Listening session

findings; Discussion of Broader Impacts; Chair's closing remarks.

**CONTACT PERSON FOR MORE INFORMATION:**

Point of contact for this meeting is: (Chris Blair, [cblair@nsf.gov](mailto:cblair@nsf.gov)), 703/292-7000. Members of the public can observe this meeting through a YouTube livestream. The YouTube link will be available from the NSB web page.

**Christopher Blair,**

*Executive Assistant to the National Science Board Office.*

[FR Doc. 2023-10995 Filed 5-19-23; 11:15 am]

**BILLING CODE 7555-01-P**

## NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-352 and 50-353; NRC-2022-0061]

### Constellation Energy Generation, LLC; Limerick Generating Station, Units 1 and 2

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** License amendment; partial issuance and denial, opportunity to demand a hearing.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) has issued amendments to Constellation Energy Generation, LLC (Constellation, the licensee) for Renewed Facility Operating License Nos. NPF-39 and NPF-85 for operation of the Limerick Generating Station, Units 1 and 2 (Limerick), located in Montgomery County, Pennsylvania. These amendments revise a license condition in each license to allow the use of an alternative seismic approach to categorizing structures, systems, and components in the licensee's application of NRC regulations. The NRC has also denied Constellation's request for amendments to Renewed Facility Operating License Nos. NPF-39 and NPF-85 for operation of Limerick to allow proposed alternative defense-in-depth and pressure boundary component processes for categorizing structures, systems, and components in the licensee's application of NRC regulations.

**DATES:** A demand for an adjudicatory hearing with respect to the denial must be filed by June 12, 2023. Under paragraph 2.307(a) of title 10 of the *Code of Federal Regulations* (10 CFR), the applicant may request an extension of this time limit if it can show good cause.

**ADDRESSES:** Please refer to Docket ID NRC-2022-0061 when contacting the



NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- *Federal Rulemaking Website*: Go to <https://www.regulations.gov> and search for Docket ID NRC–2022–0061. Address questions about Docket IDs in *Regulations.gov* to Stacy Schumann; telephone: 301–415–0624; email: [Stacy.Schumann@nrc.gov](mailto:Stacy.Schumann@nrc.gov). For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *NRC's Agencywide Documents Access and Management System (ADAMS)*: You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- *NRC's PDR*: You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1–800–397–4209 or 301–415–4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Audrey Klett, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: 301–415–0489, email: [Audrey.Klett@nrc.gov](mailto:Audrey.Klett@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Partial License Amendment Issuance Discussion**

The NRC has issued Constellation Energy Generation, LLC (Constellation, the licensee) amendments to Renewed Facility Operating License Nos. NPF–39 and NPF–85 for operation of the Limerick Generating Station, Units 1 and 2, located in Montgomery County, Pennsylvania. A publicly available version of the NRC staff's Safety Evaluation is available in ADAMS under Package Accession No. ML23090A163. Documents related to these amendments are listed in the Safety Evaluation enclosed with the

amendment. The amendments were effective as of the date of their issuance, to be implemented within 60 days.

The amendments revise a license condition in each license to allow the use of an alternative seismic approach to categorizing structures, systems, and components in the licensee's application of 10 CFR 50.69.

The application for the amendments complies, in part, with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings, as required by the Act and the Commission's rules and regulations in 10 CFR chapter I, which are set forth in the license amendment.

A Notice of Consideration of Issuance of Amendment and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing in connection with this action was published in the **Federal Register** on August 10, 2021 (86 FR 43686), as amended by notices dated February 22, 2022 (87 FR 9647), and March 18, 2022 (87 FR 15458). No request for a hearing or petition for leave to intervene was filed following each notice.

The Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for this amendment.

**II. Partial Denial of License Amendment Discussion**

The NRC has partially denied a request by Constellation Energy Generation, LLC dated March 11, 2021, as supplemented by letters dated May 5, 2021, December 15, 2021, February 14, 2022, and June 30, 2022 (ADAMS Accession Nos. ML21070A412, ML21125A215, ML21349B364, ML22045A480, and ML22182A400, respectively), to amend Renewed Facility Operating License Nos. NPF–39 and NPF–85 for operation of the Limerick Generating Station, Units 1 and 2. Specifically, the licensee requested to use proposed alternative defense-in-depth and pressure boundary component processes for categorizing structures, systems, and components in the licensee's application of 10 CFR 50.69.

As previously stated, a Notice of Consideration of Issuance of Amendment and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing in connection with this action was published in the **Federal Register**

on August 10, 2021 (86 FR 43686), as amended by notices dated February 22, 2022 (87 FR 9647), and March 18, 2022 (87 FR 15458). No request for a hearing or petition for leave to intervene was filed following each notice.

The NRC staff has advised the licensee that these aspects of the proposed amendments are denied because the proposed defense-in-depth and pressure boundary categorization processes do not meet 10 CFR 50.69. The NRC staff's Safety Evaluation (ADAMS Package Accession No. ML23094A179) explains the nature of any deficiencies and the reason for the denial.

The licensee was notified of the Commission's denial of the proposed change by a letter dated May 17, 2023 (ADAMS Accession No. ML23089A124).

**III. Opportunity To Demand a Hearing**

Under 10 CFR 2.103(b)(2), within 20 days after the date of publication of this notice, the applicant may demand an adjudicatory hearing with respect to the denial previously described. Under 10 CFR 2.307(a), the applicant may request an extension of this time limit if the applicant can show good cause.

A demand for a hearing must be filed in accordance with 10 CFR part 2, "Agency rules of practice and procedure," which is accessible electronically on the NRC's public website at <https://www.nrc.gov/reading-rm/doc-collections/cfr>. Generally, a demand for a hearing should explain why the applicant believes that the NRC denied its application in error and why the applicant believes that the application does, in fact, satisfy the requirements.

**IV. Electronic Submissions (E-Filing)**

A demand for a hearing must also be filed in accordance with the NRC's E-Filing rule at 10 CFR 2.302. The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases, to mail copies on electronic storage media, unless an exemption permitting an alternative filing method, as further discussed, is granted. Detailed guidance on electronic submissions is located in the "Guidance for Electronic Submissions to the NRC" (ADAMS Accession No. ML13031A056) and on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at [Hearing.Docket@nrc.gov](mailto:Hearing.Docket@nrc.gov), or by

telephone at 301-415-1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a demand for a hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals/getting-started.html>. After a digital ID certificate is obtained and a docket created, the participant must submit adjudicatory documents in Portable Document Format. Guidance on submissions is available on the NRC's public website at <https://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. ET on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an email confirming receipt of the document. The E-Filing system also distributes an email that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before adjudicatory documents are filed to obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the "Contact Us" link located on the NRC's public website at <https://www.nrc.gov/site-help/e-submittals.html>, by email to [MSHD.Resource@nrc.gov](mailto:MSHD.Resource@nrc.gov), or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., ET, Monday through Friday, except Federal holidays.

Participants who believe that they have good cause for not submitting documents electronically must file an

exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted in accordance with 10 CFR 2.302(b)-(d). Participants filing adjudicatory documents in this manner are responsible for serving their documents on all other participants. Participants granted an exemption under 10 CFR 2.302(g)(2) must still meet the electronic formatting requirement in 10 CFR 2.302(g)(1), unless the participant also seeks and is granted an exemption from 10 CFR 2.302(g)(1).

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket, which is publicly available at <https://adams.nrc.gov/ehd>, unless excluded pursuant to an order of the presiding officer. If you do not have an NRC-issued digital ID certificate as previously described, click "cancel" when the link requests certificates and you will be automatically directed to the NRC's electronic hearing dockets where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information such as social security numbers, home addresses, or personal phone numbers in their filings unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants should not include copyrighted materials in their submission.

For further details with respect to this action, see the application for amendments dated March 11, 2021, as supplemented by letters dated May 5, 2021, December 15, 2021, February 14, 2022, and June 30, 2022 (ADAMS Accession Nos. ML21070A412, ML21125A215, ML21349B364, ML22045A480, and ML22182A400, respectively).

Dated: May 17, 2023.

For the Nuclear Regulatory Commission.

**Audrey L. Klett,**

*Senior Project Manager, Plant Licensing Branch I, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.*

[FR Doc. 2023-10974 Filed 5-22-23; 8:45 am]

**BILLING CODE 7590-01-P**

## POSTAL REGULATORY COMMISSION

[Docket No. CP2023-155; Order No. 6511]

### Competitive Price Changes

**AGENCY:** Postal Regulatory Commission.  
**ACTION:** Notice.

**SUMMARY:** The Commission is recognizing a recently filed Postal Service document with the Commission concerning changes in rates and classifications not of general applicability for Competitive products. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

**DATES:** *Comments are due:* May 31, 2023.

**ADDRESSES:** Submit comments electronically via the Commission's Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

**FOR FURTHER INFORMATION CONTACT:** David A. Trissell, General Counsel, at 202-789-6820.

### SUPPLEMENTARY INFORMATION:

#### Table of Contents

- I. Introduction and Overview
- II. Initial Administrative Actions
- III. Ordering Paragraphs

#### I. Introduction and Overview

On May 12, 2023, the Postal Service filed notice with the Commission concerning changes in rates and classifications not of general applicability for Competitive products.<sup>1</sup> The Postal Service represents that, as required by 39 CFR 3035.105(b), the Notice includes an explanation and justification for the changes, the effective date, and a schedule of the changed rates. See Notice at 1. The Notice also includes a certification of the vote, and a redacted copy of Governors' Decision 19-1. The changes are intended to take effect on June 15, 2023, or sooner upon favorable review by the Commission. *Id.* at 1-2.

Attached to the Notice is Governors' Decision No. 19-1, which states the new prices are in accordance with 39 U.S.C. 3632 and 3633 and 39 CFR 3015.5 and 3015.7.<sup>2</sup> The Governors' Decision

<sup>1</sup> USPS Notice of Changes in Rates and Classifications Not of General Applicability for Competitive Products, May 12, 2023 (Notice).

<sup>2</sup> Notice, Decision of the Governors of the United States Postal Service on Changes in Rates and Classification Not of General Applicability for Competitive Products, at 2 (Governors' Decision No.

provides an analysis of the Competitive products' price and classification changes intended to demonstrate that the changes comply with 39 U.S.C. 3633 and 39 CFR 3015.7(c).<sup>3</sup> Another attachment sets forth the rate and classification changes and includes draft Mail Classification Schedule (MCS) language for Competitive products not of general applicability.

The Notice includes an application for non-public treatment of the unredacted Governors' Decision, the non-published rates, the price floors, and the supporting financial material filed under seal. Notice at 6.

**Planned rate and classification changes.** The Postal Service's planned rate and classification "changes establish the Business Rate Card (BRC) as a set of non-published rates available only for USPS Click-N-Ship (CNS) business customers, for the following competitive products: Priority Mail Express, Priority Mail, First-Class Package Service, and Parcel Select Ground."<sup>4</sup> The BRC rates "are considered 'Other Non-Published Competitive Rates . . . not embodied in contractual instruments' pursuant to Governors' Decision 19-1." *Id.* The Notice also includes text changes to the associated MCS language to reflect the parameters of the established BRC under each applicable product. *Id.*

## II. Initial Administrative Actions

The Commission establishes Docket No. CP2023-155 for consideration of matters raised by the Notice. Pursuant to 39 U.S.C. 505, Christopher C. Mohr is appointed to serve as Public Representative to represent the interests of the general public in this docket. The Commission invites comments on whether the Postal Service's filing is consistent with 39 U.S.C. 3632, 3633, and 39 CFR 3035.105 and .107. Comments are due no later than May 31, 2023. The public portions of the filing can be accessed via the Commission's website (<http://www.prc.gov>).

## III. Ordering Paragraphs

*It is ordered:*

1. The Commission establishes Docket No. CP2023-155 for consideration of matters raised by the Postal Service's Notice.

19-1). The referenced regulations have been reorganized since the issuance of Governor's Decision No. 19-1 and are now found at 39 CFR 3035.105 and .107. See Docket No. RM2019-13, Order Reorganizing Commission Regulations and Amending Rules of Practice, January 16, 2020 (Order No. 5407) (effective April 20, 2020).

<sup>3</sup> Governors' Decision No. 19-1 at 2. Reorganized to 39 CFR 3035.107(c). See Order No. 5407.

<sup>4</sup> Notice at 1. After July 9, the BRC will apply to the USPS Ground Advantage product. *Id.* at 1 n.1.

2. Comments are due no later than May 31, 2023.

3. Pursuant to 39 U.S.C. 505, Christopher C. Mohr will serve as an officer of the Commission (Public Representative) to represent the interests of the general public in these dockets.

4. The Secretary shall arrange for publication of this order in the **Federal Register**.

By the Commission.

**Erica A. Barker,**

*Secretary.*

[FR Doc. 2023-10925 Filed 5-22-23; 8:45 am]

**BILLING CODE 7710-FW-P**

## POSTAL REGULATORY COMMISSION

**[Docket Nos. MC2023-159 and CP2023-163; MC2023-160 and CP2023-164]**

### New Postal Products

**AGENCY:** Postal Regulatory Commission.

**ACTION:** Notice.

**SUMMARY:** The Commission is noticing a recent Postal Service filing for the Commission's consideration concerning a negotiated service agreement. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

**DATES:** *Comments are due:* May 25, 2023.

**ADDRESSES:** Submit comments electronically via the Commission's Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

**FOR FURTHER INFORMATION CONTACT:** David A. Trissell, General Counsel, at 202-789-6820.

**SUPPLEMENTARY INFORMATION:**

### Table of Contents

- I. Introduction
- II. Docketed Proceeding(s)

### I. Introduction

The Commission gives notice that the Postal Service filed request(s) for the Commission to consider matters related to negotiated service agreement(s). The request(s) may propose the addition or removal of a negotiated service agreement from the Market Dominant or the Competitive product list, or the modification of an existing product currently appearing on the Market Dominant or the Competitive product list.

Section II identifies the docket number(s) associated with each Postal Service request, the title of each Postal Service request, the request's acceptance date, and the authority cited by the Postal Service for each request. For each request, the Commission appoints an officer of the Commission to represent the interests of the general public in the proceeding, pursuant to 39 U.S.C. 505 (Public Representative). Section II also establishes comment deadline(s) pertaining to each request.

The public portions of the Postal Service's request(s) can be accessed via the Commission's website (<http://www.prc.gov>). Non-public portions of the Postal Service's request(s), if any, can be accessed through compliance with the requirements of 39 CFR 3011.301.<sup>1</sup>

The Commission invites comments on whether the Postal Service's request(s) in the captioned docket(s) are consistent with the policies of title 39. For request(s) that the Postal Service states concern Market Dominant product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3622, 39 U.S.C. 3642, 39 CFR part 3030, and 39 CFR part 3040, subpart B. For request(s) that the Postal Service states concern Competitive product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3632, 39 U.S.C. 3633, 39 U.S.C. 3642, 39 CFR part 3035, and 39 CFR part 3040, subpart B. Comment deadline(s) for each request appear in section II.

## II. Docketed Proceeding(s)

1. *Docket No(s):* MC2023-159 and CP2023-163; *Filing Title:* USPS Request to Add Priority Mail, First-Class Package Service & Parcel Select Contract 20 to Competitive Product List and Notice of Filing Materials Under Seal; *Filing Acceptance Date:* May 17, 2023; *Filing Authority:* 39 U.S.C. 3642, 39 CFR 3040.130 through 3040.135, and 39 CFR 3035.105; *Public Representative:* Gregory S. Stanton; *Comments Due:* May 25, 2023.

2. *Docket No(s):* MC2023-160 and CP2023-164; *Filing Title:* USPS Request to Add Priority Mail, First-Class Package Service & Parcel Select Contract 21 to Competitive Product List and Notice of Filing Materials Under Seal; *Filing Acceptance Date:* May 17, 2023; *Filing Authority:* 39 U.S.C. 3642, 39 CFR 3040.130 through 3040.135, and 39 CFR 3035.105; *Public Representative:* Christopher C. Mohr; *Comments Due:* May 25, 2023.

<sup>1</sup> See Docket No. RM2018-3, Order Adopting Final Rules Relating to Non-Public Information, June 27, 2018, Attachment A at 19-22 (Order No. 4679).

This Notice will be published in the **Federal Register**.

Erica A. Barker,  
Secretary.

[FR Doc. 2023-10933 Filed 5-22-23; 8:45 am]

BILLING CODE 7710-FW-P

## OFFICE OF SCIENCE AND TECHNOLOGY POLICY

### Request for Information; National Nanotechnology Initiative Environmental, Health, and Safety Research Strategy; Extension of Comment Period

**AGENCY:** Office of Science and Technology Policy (OSTP).

**ACTION:** Notice of request for information; extension of comment period.

**SUMMARY:** The National Nanotechnology Coordination Office (NNCO), on behalf of the Nanoscale Science, Engineering, and Technology (NSET) Subcommittee of the Committee on Technology, National Science and Technology Council (NSTC), is extending the comment period for the notice announcing a request for information and comments that appeared in the **Federal Register** of April 5, 2023. In that notice, NNCO requested information and comments on updating the National Nanotechnology Initiative (NNI) Environmental, Health, and Safety (EHS) Research Strategy. The NNCO is taking this action to allow interested persons additional time to submit comments. The NNI's current strategy was prepared in 2011, with substantial public engagement. Federal agencies participating in NSET's Nanotechnology Environmental and Health Implications (NEHI) Working Group have begun to review the 2011 NNI EHS Research Strategy and request input to help inform a revised and updated EHS strategy.

**DATES:** The NNCO is extending the comment period on the notice published April 5, 2023 (88 FR 20194). Interested persons and organizations are invited to submit comments on or before 5 p.m. ET June 16, 2023.

**ADDRESSES:** Comments must be submitted via the Federal eRulemaking Portal at [regulations.gov](https://www.regulations.gov). However, if you require an accommodation or cannot otherwise submit your comments via [regulations.gov](https://www.regulations.gov), please contact the program contact person listed under **FOR FURTHER INFORMATION CONTACT**. OSTP will not accept comments by fax or by email, or comments submitted after the comment

period closes. To ensure that OSTP does not receive duplicate copies, please submit your comments only once. Additionally, please include the Docket ID at the top of your comments.

**Federal eRulemaking Portal:** Go to [www.regulations.gov](https://www.regulations.gov) to submit your comments electronically. Information on how to use [Regulations.gov](https://www.regulations.gov), including instructions for accessing agency documents, submitting comments, and viewing the docket, is available on the site under "FAQ" (<https://www.regulations.gov/faq>).

**Privacy Note:** OSTP's policy is to make all comments received from members of the public available for public viewing in their entirety on the Federal eRulemaking Portal at [www.regulations.gov](https://www.regulations.gov). Therefore, commenters should be careful to include in their comments only information that they wish to make publicly available. OSTP requests that no proprietary information, copyrighted information, or personally identifiable information be submitted in response to this RFI.

**Instructions:** Response to this RFI is voluntary. Respondents need not reply to all questions listed. For all submissions, clearly indicate which questions are being answered. Multiple submissions from an individual, group, or institution will be considered as supplements to the original response and not as new comments. Submissions should include the name(s) of the person(s) or organization(s) filing the comment.

Any information obtained from this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development. OSTP will not respond to individual submissions. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed. This RFI is not accepting applications for financial assistance or financial incentives. Please note that the United States Government will not pay for response preparation, or for the use of any information contained in a response.

**FOR FURTHER INFORMATION CONTACT:**

Rhema Bjorkland at [info@nnco.nano.gov](mailto:info@nnco.nano.gov) or 202-517-1050. Individuals who use telecommunication devices for the deaf and hard of hearing (TDD) may call the Federal Relay Service (FRS) at 1-800-877-8339, 24 hours a day, every day of the year, including holidays.

**SUPPLEMENTARY INFORMATION:**

**Background Information:** NEHI, on behalf of the NNI, is engaging the community early in the process to allow the public and key stakeholders to

inform revisions to the NNI EHS research strategy. In preparing comments, the public is invited to view the core research areas and their associated needs as set out in the NNI 2011 Environmental, Health, and Safety (EHS) Research Strategy (<https://www.nano.gov/2011EHSStrategy>). The 2014 Progress Review on the Coordinated Implementation of the National Nanotechnology Initiative 2011 Environmental, Health, and Safety Research Strategy (<https://www.nano.gov/2014-EHS-Progress-Review>) and 2017 Highlights of Recent Research on the Environmental, Health, and Safety Implications of Engineered Nanomaterials (<https://www.nano.gov/Highlights-Federal-NanoEHS-Report>) provide additional information on the progress made in the core research areas.

**Information Requested:** Pursuant to 42 U.S.C. 6617, OSTP is soliciting public input through an RFI to obtain feedback from a wide variety of stakeholders, including individuals, industry, academia, research laboratories, nonprofits, and think tanks. OSTP is interested in public input to inform an updated nanotechnology EHS research strategy, specifically a strategy that focuses on the use of science-based risk analysis and risk management to protect public health and the environment while also fostering the technological advancements that benefit society. OSTP seeks responses to any or all of the following questions:

1. What are the research accomplishments in the following six core research areas identified in the 2011 NNI EHS Strategy? The six core research areas are (1) Nanomaterial Measurement Infrastructure, (2) Human Exposure Assessment, (3) Human Health, (4) Environment, (5) Risk Assessment and Risk Management Methods, and (6) Informatics and Modeling.

2. What research gaps remain in addressing the six NNI EHS core research areas listed in question 1?

3. The ethical, legal, and societal implications (ELSI) of nanotechnology are considered across the core research areas of the 2011 strategy. What additional ways could ELSI be more fully integrated throughout a refreshed NNI EHS research strategy?

4. What broad themes should the revised strategy adopt to integrate and connect the six research areas?

5. How should the updated NNI EHS research strategy reflect the evolution of nanotechnology beyond engineered nanomaterials to complex systems, structures, and devices?

6. The 2011 strategy focused on engineered nanomaterials and did not include incidental nanoscale materials such as nanoplastics and certain nanoscale particulate emissions such as those from 3D printing. If the updated strategy is revised to include some non-engineered or incidental nanomaterials, describe how to scope the strategy in a way that complements rather than being redundant with existing health and environmental research (e.g., by excluding the large body of existing research on air pollution, which can include nanoscale particles).

Dated: May 18, 2023.

**Stacy Murphy,**

*Deputy Chief Operations Officer/Security Officer.*

[FR Doc. 2023-10958 Filed 5-22-23; 8:45 am]

BILLING CODE 3270-F1-P

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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-97520; File No. SR-MIAX-2023-20]

### Self-Regulatory Organizations; Miami International Securities Exchange LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 518, Complex Orders

May 17, 2023.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on May 4, 2023, Miami International Securities Exchange LLC (“MIAX” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

#### I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend Exchange Rule 518, Complex Orders.

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings>, at MIAX’s principal office, and at the Commission’s Public Reference Room.

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

#### II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

##### A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

###### 1. Purpose

The Exchange proposes to amend Rule 518, Complex Orders, to: (i) amend the definition of a conforming ratio and a non-conforming ratio to include the conforming and non-conforming ratios for stock-option orders; (ii) amend the definition of a complex order to insert the clarifying phrase, “conforming or non-conforming ratio” for stock-option orders; and (iii) adopt new paragraph (2) to Interpretations and Policies .01(c) of Rule 518 to describe the handling of stock-option orders with non-conforming ratios. Additionally, the Exchange proposes to make a minor non-substantive edit to the first paragraph of Interpretations and Policies .01(c) of Rule 518 to renumber the paragraph as paragraph (1).

###### Background

Currently, the Exchange defines a “complex order” as any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the “legs” or “components” of the complex order), for the same account, in a conforming<sup>3</sup> or non-conforming ratio<sup>4</sup> for the purposes of executing a particular investment strategy. Mini-options may only be part of a complex order that includes other mini-options. Only those complex orders in the classes designated by the Exchange and

<sup>3</sup> A “conforming ratio” is where the ratio between the sizes of the components of a complex order comprised solely of options is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00). See Exchange Rule 518(a)(8).

<sup>4</sup> A “non-conforming ratio” is where the ratio between the sizes of the components of a complex order comprised solely of options is greater than three-to-one (3.00) or less than one-to-three (.333). See Exchange Rule 518(a)(16).

communicated to Members<sup>5</sup> via Regulatory Circular with no more than the applicable number of legs, as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing.

Additionally, a complex order can also be a “stock-option order” as described further, and subject to the limitations set forth, in Interpretations and Policies .01 of Rule 518. A stock-option order is an order to buy or sell a stated number of units of an underlying security (stock or Exchange Traded Fund Share (“ETF”)) or a security convertible into the underlying stock (“convertible security”) coupled with the purchase or sale of options contract(s) on the opposite side of the market representing either (i) the same number of units of the underlying security or convertible security, or (ii) the number of units of the underlying stock necessary to create a delta neutral position, but in no case in a ratio greater than eight-to-one (8.00), where the ratio represents the total number of units of the underlying security or convertible security in the option leg to the total number of units of the underlying security or convertible security in the stock leg. Only those stock-option orders in the classes designated by the Exchange and communicated to Members via Regulatory Circular with no more than the applicable number of legs as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing.<sup>6</sup>

###### Proposal

The Exchange now proposes to accept stock-option orders with ratios greater than eight-to-one, or non-conforming ratios, as defined herein. To support its proposal, the Exchange proposes to amend the definition of a “conforming ratio” in Exchange Rule 518(a)(8) to include the current ratio for stock-option orders accepted by the Exchange, which is where one component of the complex order is the underlying security (stock or ETF), or security convertible into the underlying stock (“convertible security”) and the ratio between the option component(s) and the underlying security (stock or ETF), or convertible security is less than or equal to eight-to-one (8.00).

Specifically, as amended the proposed rule will provide that, a

<sup>5</sup> The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100.

<sup>6</sup> See Exchange Rule 518(a)(5).

“conforming ratio” is where the ratio between the sizes of the components of a complex order comprised solely of options is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00); where one component of the complex order is the underlying security (stock or ETF) or security convertible into the underlying stock (“convertible security”) the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is less than or equal to eight-to-one (8.00).<sup>7</sup> The Exchange also proposes to amend the definition of a non-conforming ratio in Exchange Rule 518(a)(16) to include stock-option orders, to state, where one component of the complex order is the underlying security (stock or ETF) or underlying security convertible into the underlying stock (“convertible security”), the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is greater than eight-to-one (8.00). Specifically, as amended the proposed rule will provide that, a “non-conforming ratio” is where the ratio between the sizes of the components of a complex order comprised solely of options is greater than three-to-one (3.00) or less than one-to-three (.333); where one component of the complex order is the underlying security (stock or ETF) or security convertible into the underlying stock (“convertible security”), the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is greater than eight-to-one (8.00).<sup>8</sup>

Additionally, the Exchange proposes to amend the second paragraph of Rule 518(a)(5) which discusses stock-option orders to include the terms conforming and non-conforming ratio and to remove the reference to the eight-to-one ratio as the conforming and non-conforming ratios for stock-option complex orders are being relocated under this proposal to Rule 518(a)(8) and (a)(16) respectively.

The Exchange also proposes to renumber the first paragraph of Interpretations and Policies .01(c) of Rule 518 as paragraph (1) and to insert the clarifying phrase, “with a conforming ratio,” to delineate stock-option order handling when there is a conforming ratio versus a non-conforming ratio.

Like stock-option orders with conforming ratios, stock-option orders with non-conforming ratios will also be required to create delta neutral

positions<sup>9</sup> and must also comply with the Qualified Contingent Trade Exemption from Rule 611(a) of Regulation NMS under the Securities Exchange Act of 1934 in the same manner as stock-option orders with conforming ratios.<sup>10</sup> Members submitting stock option orders in conforming or non-conforming ratios represent that such orders comply with the Qualified Contingent Trade Exemption.<sup>11</sup> The Exchange represents that it will have the necessary surveillance in place for stock-option orders with non-conforming ratios prior to implementing this functionality.

The Exchange proposes to adopt new paragraph (2) to Interpretations and Policies .01(c) of Rule 518 to describe stock-option order processing on the Exchange for stock-option orders with non-conforming ratios. Proposed paragraph (2) will provide that, “the option leg(s) of a stock-option order with a non-conforming ratio shall not be executed (i) at a price that is inferior to the Exchange’s best bid (offer) in the option or (ii) at the Exchange’s best bid (offer) in that option if there are one or more Priority Customer Orders<sup>12</sup> resting on the Simple Order Book<sup>13</sup> at the best bid (offer) price for any option leg of a stock-option order. Each component of a stock-option order with a non-conforming ratio must trade at a price better than any Priority Customer Order(s) resting on the Simple Order Book at the best bid (offer) price by at least \$0.01. The option leg(s) of a stock-option order may be executed in a \$0.01 increment, regardless of the minimum quoting increment applicable to that series.”<sup>14</sup>

Additionally, the Exchange’s proposal is consistent with the Exchange’s handling of complex orders with only options components with non-conforming ratios as Exchange Rule 518(c)(1)(v) provides that, a complex order with a non-conforming ratio will not be executed at a net price that would cause any option component of the complex strategy to be executed: (A) at a price of zero; (B) ahead of a Priority Customer Order at the MBBO<sup>15</sup> on the

Simple Order Book; or (C) at a price that is through the NBBO.<sup>16</sup> Like Exchange Rule 518(c)(1)(v) which requires each component of a complex order with a non-conforming ratio to trade at a price that is better than the MBBO if there is Priority Customer interest resting on the Simple Order Book at the MBBO, this proposal will protect Priority Customer interest by requiring that each leg of a stock-option order with a non-conforming ratio trade at a price that is \$0.01 better than any Priority Customer interest resting on the Simple Order Book at the best bid or offer.<sup>17</sup> Thus the proposed rule continues to protect Priority Customer interest on the Exchange.

### Implementation

The Exchange will announce the implementation of stock-option orders with non-conforming ratios by Regulatory Circular at least 48 hours prior to implementation of this functionality, as the Exchange believes that 48 hours of notice is adequate for Members.

### 2. Statutory Basis

The Exchange believes that its proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act,<sup>18</sup> in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in, securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section (6)(b)(5)<sup>19</sup> requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange currently only processes stock-option orders that fit within the definition of a conforming ratio, that is where one component of

that of other options exchanges. See Cboe Exchange Rule 5.33(f)(2)(A)(iv)(b); and BOX Exchange Rule 7240(b)(2)(iii).

<sup>16</sup> The term “NBBO” means the national best bid or offer as calculated by the Exchange based on market information received by the Exchange from OPRA. See Exchange Rule 100.

<sup>17</sup> See proposed Interpretations and Policies .01(c)(2) of Exchange Rule 518.

<sup>18</sup> 15 U.S.C. 78f(b).

<sup>19</sup> 15 U.S.C. 78(f)(b)(5).

<sup>9</sup> See Exchange Rule 518(a)(5).

<sup>10</sup> See Interpretations and Policies .01(a) of Exchange Rule 518.

<sup>11</sup> See *id.*

<sup>12</sup> The term “Priority Customer Order” means an order for the account of a Priority Customer. See Exchange Rule 100.

<sup>13</sup> The “Simple Order Book” is the Exchange’s regular electronic book of orders and quotes. See Exchange Rule 518(a)(17).

<sup>14</sup> See proposed Interpretations and Policies .01(c) of Rule 518.

<sup>15</sup> The term “MBBO” means the best bid or offer on the Exchange. See Exchange Rule 100. The Exchange notes that this requirement is similar to

<sup>7</sup> See proposed Exchange Rule 518(a)(8).

<sup>8</sup> See proposed Exchange Rule 518(a)(16).

the complex order is the underlying instrument and the ratio between the option component(s) and the underlying instrument must be less than or equal to eight-to-one (8.00). The Exchange has received significant demand from its Members to support stock-option orders in non-conforming ratios, and the Exchange believes the proposed rule change will remove impediments to and perfect the mechanism of a free and open market and benefit investors, because it will allow market participants to execute stock-option orders where one component of the complex order is the underlying security (stock or ETF) or security convertible into the underlying stock (“convertible security”) and the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is greater than eight-to-one (8.00).

The proposed rule change will further remove impediments to and perfect the mechanism of a free and open market and a national market system, as at least two other options exchanges permit the trading of stock-option orders with non-conforming ratios. Specifically, Cboe and Cboe EDGX began supporting the electronic processing of stock-option orders in non-conforming ratios via Cboe’s Complex Order Auctions (“COA”);<sup>20</sup> Complex Order Book (“COB”);<sup>21</sup> Automated Improvement Mechanism (“AIM”);<sup>22</sup> and as Qualified Contingent Cross Orders (“QCC”)<sup>23</sup> in August of 2022.<sup>24</sup> Additionally, the execution price for each option leg must improve the local BBO<sup>25</sup> by at least \$0.01 when there is a Priority Customer Order resting at the BBO on that leg,<sup>26</sup> which is the same requirement that

applies on the Exchange to all complex orders with non-conforming ratios.<sup>27</sup>

Further, the Exchange’s proposal promotes a free and open market and a national system and, in general, protects investors and the public interest by providing market participants an additional venue to route stock-option orders with non-conforming ratios to for execution. This provides investors an additional venue to choose from when making order-routing decisions.

The proposed change rule change will continue to protect Priority Customer Order interest on the Simple Order Book in the same manner as it does today, as all complex orders with a conforming ratio will continue to be executed on the Exchange without change.<sup>28</sup> As discussed above, the proposed Exchange rules provide that a stock-option order with a non-conforming ratio will not be executed (i) at a price that is inferior to the Exchange’s best bid (offer) in the option or (ii) at the Exchange’s best bid (offer) in that option if there are one or more Priority Customer Orders resting on the Simple Order Book at the best bid (offer) price for any option leg of a stock-option order. Each component of a stock-option order with a non-conforming ratio must trade at a price better than any Priority Customer Order(s) resting on the Simple Order Book at the best bid (offer) price by at least \$0.01.<sup>29</sup>

The Exchange believes the proposed changes will increase opportunities for execution of stock-option orders with non-conforming ratios, which will benefit all investors. The Exchange also believes that the proposed rule change is designed to not permit unfair discrimination among market participants, as all market participants may trade stock-option orders with non-conforming ratios, and the priority and eligibility requirements apply equally to the stock-option orders with non-conforming ratios of all market participants.

The Exchange believes that its proposal is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest, by enhancing its System<sup>30</sup> and rules governing complex orders. The Exchange’s proposal should provide market participants with

trading opportunities more closely aligned with their investment or risk management strategies and allow market participants to benefit from trading these orders electronically.

#### *B. Self-Regulatory Organization’s Statement on Burden on Competition*

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Exchange does not believe that its proposed rule change will impose any burden on intra-market competition as the Rules of the Exchange apply equally to all Members of the Exchange and all Members may submit stock-option orders with non-conforming ratios. Therefore, any Member of the Exchange may submit a stock-option order with a conforming or non-conforming ratio and the order will be handled in a uniform fashion by the System. Further, the Exchange’s proposal protects investors as Priority Customer interest is protected and the Exchange’s proposal prevents any option component of a stock-option order in a non-conforming ratio to be [sic] executed ahead of a Priority Customer Order.<sup>31</sup>

The Exchange does not believe that its proposed rule change will impose any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act, rather the Exchange believes that its proposal will promote inter-market competition. Currently, at least two other options exchanges process stock-option orders with ratios that are greater than eight-to-one.<sup>32</sup> The Exchange’s proposal will enhance inter-market competition by providing an additional venue where investors may electronically execute their stock-option orders with non-conforming ratios, giving investors greater flexibility and a choice of where to send their orders. Market participants may find it more convenient to access one exchange over another or may choose to concentrate volume at a particular exchange in order to maximize the impact of volume-based incentive programs, or may prefer the trade execution services of one exchange over another.

As such, the Exchange does not believe the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

<sup>20</sup> See Cboe Exchange Rule 5.33(d).

<sup>21</sup> See Cboe Exchange Rule 5.33(a).

<sup>22</sup> See Cboe Exchange Rule 5.37.

<sup>23</sup> See “Qualified Contingent Cross or QCC” at Cboe Exchange Rule 5.6(c).

<sup>24</sup> See Cboe Exchange Alert, “Update—Cboe Options Introduces C-SAM Enhancement, New Net, Leg Price Increments, and Enhanced Handling for Complex Orders with Non-Conforming Ratios, Reference ID: C2022072700 available online at [https://cdn.cboe.com/resources/release\\_notes/2022/Update-Cboe-Options-Introduces-C-SAM-Enhancement-New-Net-Leg-Price-Increments-and-Enhanced-Handling-for-Complex-Orders-with-Non-Conforming-Ratios.pdf](https://cdn.cboe.com/resources/release_notes/2022/Update-Cboe-Options-Introduces-C-SAM-Enhancement-New-Net-Leg-Price-Increments-and-Enhanced-Handling-for-Complex-Orders-with-Non-Conforming-Ratios.pdf).

<sup>25</sup> The term “BBO” means the best bid or offer disseminated on the Exchange. See Cboe Exchange Rule 1.1. The Exchange notes that at least one other options exchange offers stock-option orders with non-conforming ratios. See the definition of “Stock-Option Order” in Cboe Exchange Rule 1.1; and see also Cboe Exchange Rule 5.85(b)(3) which provides that, “stock-option orders . . . have priority over bids (offers) of in-crowd market participants but not over Priority Customer bids (offers) in the Book.”

<sup>26</sup> See *supra* note 24. [sic]

<sup>27</sup> See Exchange Rule 518(c)(1)(v).

<sup>28</sup> See Exchange Rule 518(c)(1)(iv).

<sup>29</sup> See *supra* note 17.

<sup>30</sup> The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

<sup>31</sup> See proposed Interpretations and Policies .01(c)(2) of Exchange Rule 518.

<sup>32</sup> See *supra* note 24.



*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

Written comments were neither solicited nor received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate, it has become effective pursuant to 19(b)(3)(A) of the Act<sup>33</sup> and Rule 19b-4(f)(6)<sup>34</sup> thereunder.

A proposed rule change filed under Rule 19b-4(f)(6)<sup>35</sup> normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b-4(f)(6)(iii),<sup>36</sup> the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange states that waiver of the operative delay will benefit investors by making available immediately an additional venue for trading stock-option orders in which the ratio between the options component(s) of the order and the underlying security component is greater than 8:1. The Exchange states that the proposal protects investors by requiring each option leg of a non-conforming ratio stock-option order, as defined in proposed Exchange Rule 518(a)(16), to trade at a price that is better than Priority Customer Order(s) resting on the Simple Order Book at the Exchange's best bid (offer) by at least \$0.01.<sup>37</sup> The Exchange notes that this requirement is consistent with the current requirements in Exchange Rule 518(c)(1)(v), which, among other things, states that a non-conforming ratio complex order comprised solely of options will not be executed at a net price that would cause any option component of the order to be executed ahead of a Priority Customer Order at

the MBBO on the Exchange's Simple Order Book.<sup>38</sup> As noted above, the Exchange states that it has received significant demand from its Members to support stock-option orders with non-conforming ratios. The Exchange further states that it will have surveillance procedures in place for stock-option orders with non-conforming ratios prior to implementing the functionality.

The Commission finds that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The rules of at least one other options exchange currently permit the trading on the exchange's floor of stock-option orders in which the ratio between the option component(s) of the order and the underlying security component is greater than 8:1.<sup>39</sup> The proposal will provide investors with an additional venue for trading these stock-option orders. The proposal protects the priority of Priority Customer orders resting on the Exchange's Simple Order Book by requiring each option component of a non-conforming ratio stock-option order to trade at a price that is better than any Priority Customer Order(s) resting on the Exchange's Simple Order Book at the best bid (offer) price by at least \$0.01.<sup>40</sup> This protection for Priority Customer orders is consistent with Exchange Rule 518(c)(1)(v), which, among other things, states that a non-conforming ratio complex order comprised solely of options will not be executed at a net price that would cause any option component of the order to be executed ahead of a Priority Customer Order at the MBBO on the Exchange's Simple

<sup>38</sup> See Exchange Rule 518(c)(1)(v).

<sup>39</sup> Cboe Rule 1.1 states that "A stock-option order is an order to buy or sell a stated number of units of an underlying or a related security coupled with either (a) the purchase or sale of option contract(s) on the opposite side of the market representing either the same number of units of the underlying or related security or the number of units of the underlying security necessary to create a delta neutral position or (b) the purchase or sale of an equal number of put and call option contracts, each having the same exercise price and expiration date, and each representing the same number of units of stock as, and on the opposite side of the market from, the underlying or related security portion of the order. For purposes of electronic trading, the term "stock-option order" has the meaning set forth in Rule 5.33." See also Cboe Rule 5.85(b)(3) (establishing the priority of stock-option orders on Cboe's floor).

<sup>40</sup> See proposed Exchange Rule 518, Interpretation and Policy .01(c)(2). Proposed Exchange Rule 518, Interpretation and Policy .01(c)(2) also states that the option leg(s) of a non-conforming ratio stock-option order may not be executed (i) at a price that is inferior to the Exchange's best bid (offer) in the option or (ii) at the Exchange's best bid (offer) in that option if there are one or more Priority Customer Orders resting on the Simple Order Book at the best bid (offer) price for any option leg of the order.

Order Book.<sup>41</sup> In addition, like stock-option orders with a conforming ratio, stock-option orders with a non-conforming ratio must create a delta neutral position and comply with the requirements of the QCT Exemption.<sup>42</sup> The Exchange states that it will have necessary surveillance procedures in place prior to introducing non-conforming ratio stock-option orders. For all of these reasons, the Commission designates the proposal operative upon filing.<sup>43</sup>

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

**IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

*Electronic Comments*

- Use the Commission's internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-MIAX-2023-20 on the subject line.

*Paper Comments*

- Send paper comments in triplicate to Secretary, Securities and Exchange

<sup>41</sup> See Exchange Rule 518(c)(1)(v). Other options exchanges that provide for the trading of complex orders comprised solely of options that have a ratio greater than 3:1 provide the same protection for customer orders on their single-leg limit order books. See, e.g., Cboe Rule 5.33(f)(2)(A)(iv)(b) (stating that if the complex order has a ratio less than one-to-three (.333) or greater than three-to-one (3.00), the component(s) of the complex order for the leg(s) with a Priority Customer order at the BBO must execute at a price that improves the price of that Priority Customer order(s) on the Simple Order Book by at least one minimum increment); and BOX Rule 7240(b)(2)(iii) (stating that a Multi-Leg Order may be executed at a net credit or debit price; provided, however, that each component leg must execute (A) at or between the NBB0, and (B) at a price that is at least \$0.01 better than any Public Customer order on the BOX Book).

<sup>42</sup> See proposed Exchange Rule 518(b)(5) and Exchange Rule 518, Interpretation and Policy .01(a).

<sup>43</sup> For purposes only of accelerating the operative date of this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

<sup>33</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>34</sup> 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

<sup>35</sup> 17 CFR 240.19b-4(f)(6).

<sup>36</sup> 17 CFR 240.19b-4(f)(6)(iii).

<sup>37</sup> See proposed Exchange Rule 518, Interpretation and Policy .01(c)(2).

Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-MIAX-2023-20. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to File Number SR-MIAX-2023-20 and should be submitted on or before June 13, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>44</sup>

**Sherry R. Haywood,**  
Assistant Secretary.

[FR Doc. 2023-10905 Filed 5-22-23; 8:45 am]

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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-97521; File No. SR-GEMX-2023-07]

### Self-Regulatory Organizations; Nasdaq GEMX, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Options 7, Section 3

**DATES:** May 17, 2023.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934

(“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on May 9, 2023, Nasdaq GEMX, LLC (“GEMX” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the proposed rule change as described in Items I, II, and III, below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend GEMX's Pricing Schedule at Options 7, Section 3, “Regular Order Fees and Rebates.”<sup>3</sup>

The text of the proposed rule change is available on the Exchange's website at <https://listingcenter.nasdaq.com/rulebook/gemx/rules>, at the principal office of the Exchange, and at the Commission's Public Reference Room.

#### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

##### A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

###### 1. Purpose

GEMX proposes to amend its Pricing Schedule at Options 7, Section 3, “Regular Order Fees and Rebates” to decrease the Penny Symbol Priority Customer<sup>4</sup> Taker Fees.

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> The Exchange originally filed SR-GEMX-2023-06 on May 1, 2023. On May 9, 2023, the Exchange withdrew SR-GEMX-2023-06 and replaced that filing with the instant filing.

<sup>4</sup> A “Priority Customer” is a person or entity that is not a broker/dealer in securities, and does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s), as defined in Nasdaq GEMX Options 1, Section 1(a)(36). Unless otherwise noted, when used in the Pricing Schedule the term “Priority Customer” includes “Retail”. See Options 7, Section 1(c).

Today, GEMX assesses 5 tiers of Penny Symbol Taker Fees. Market Makers,<sup>5</sup> and Non-Nasdaq GEMX Market Makers (FarMM)<sup>6</sup> are assessed the following Penny Symbol Taker Fees: a Tier 1 Taker Fee of \$0.50 per contract; a Tier 2 Taker Fee of \$0.50 per contract; a Tier 3 Taker Fee of \$0.50 per contract; a Tier 4 Taker Fee of \$0.50 per contract; and a Tier 5 Taker Fee of \$0.48 per contract. In comparison, GEMX assesses Firm Proprietary<sup>7</sup>/Broker Dealers<sup>8</sup> and Professional Customers<sup>9</sup> the following Penny Symbol Taker Fees: a Tier 1 Taker Fee of \$0.50 per contract; a Tier 2 Taker Fee of \$0.50 per contract; a Tier 3 Taker Fee of \$0.50 per contract; a Tier 4 Taker Fee of \$0.50 per contract; and a Tier 5 Taker Fee of \$0.49 per contract. Finally, Priority Customers are assessed the following Penny Symbol Taker Fees: a Tier 1 Taker Fee of \$0.50 per contract; a Tier 2 Taker Fee of \$0.50 per contract; a Tier 3 Taker Fee of \$0.50 per contract; a Tier 4 Taker Fee of \$0.50 per contract; and a Tier 5 Taker Fee of \$0.49 per contract. Finally, Priority Customers are assessed the following Penny Symbol Taker Fees: a Tier 1 Taker Fee of \$0.48 per contract; a Tier 2 Taker Fee of \$0.48 per contract; a Tier 3 Taker Fee of \$0.48 per contract; a Tier 4 Taker Fee of \$0.48 per contract; and a Tier 5 Taker Fee of \$0.43 per contract.

At this time, GEMX proposes to decrease the Penny Symbol Priority Customer Taker Fees. Specifically, GEMX proposes to decrease Penny Symbol Priority Customer Taker Fees Tiers 1 through 4 from \$0.48 per contract to \$0.41 per contract. Additionally, GEMX proposes to decrease Penny Symbol Priority Customer Taker Fee Tier 5 from \$0.43 to \$0.41 per contract. GEMX is not proposing to amend the Qualifying Tier Thresholds to achieve these tiers. GEMX believes that decreasing the Priority Customer Taker Fees in Penny Symbols will incentivize GEMX Members to send additional order flow to GEMX.

###### 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>10</sup> in general, and furthers the objectives of Sections 6(b)(4) and 6(b)(5)

<sup>5</sup> The term “Market Makers” refers to “Competitive Market Makers” and “Primary Market Makers” collectively. See Options 1, Section 1(a)(21).

<sup>6</sup> A “Non-Nasdaq GEMX Market Maker” is a market maker as defined in Section 3(a)(38) of the Securities Exchange Act of 1934, as amended, registered in the same options class on another options exchange. See Options 7, Section 1(c).

<sup>7</sup> A “Firm Proprietary” order is an order submitted by a member for its own proprietary account. See Options 7, Section 1(c).

<sup>8</sup> A “Broker-Dealer” order is an order submitted by a member for a broker-dealer account that is not its own proprietary account. See Options 7, Section 1(c).

<sup>9</sup> A “Professional Customer” is a person or entity that is not a broker/dealer and is not a Priority Customer.

<sup>10</sup> See 15 U.S.C. 78f(b).

<sup>44</sup> 17 CFR 200.30-3(a)(12).

of the Act,<sup>11</sup> in particular, in that it provides for the equitable allocation of reasonable dues, fees, and other charges among members and issuers and other persons using any facility, and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The proposed changes to the Pricing Schedule are reasonable in several respects. As a threshold matter, the Exchange is subject to significant competitive forces in the market for order flow, which constrains its pricing determinations. The fact that the market for order flow is competitive has long been recognized by the courts. In *NetCoalition v. Securities and Exchange Commission*, the D.C. Circuit stated, “[n]o one disputes that competition for order flow is ‘fierce.’ . . . As the SEC explained, ‘[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution’; [and] ‘no exchange can afford to take its market share percentages for granted’ because ‘no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers’ . . . .”<sup>12</sup>

Numerous indicia demonstrate the competitive nature of this market. For example, clear substitutes to the Exchange exist in the market for options transaction services. The Exchange is only one of sixteen options exchanges to which market participants may direct their order flow. Within this environment, market participants can freely and often do shift their order flow among the Exchange and competing venues in response to changes in their respective pricing schedules. Within the foregoing context, the proposal represents a reasonable attempt by the Exchange to attract additional order flow to the Exchange and increase its market share relative to its competitors.

GEMX’s proposal to decrease Penny Symbol Priority Customer Taker Fees Tiers 1 through 4 from \$0.48 per contract to \$0.41 per contract and Penny Symbol Priority Customer Taker Fee Tier 5 from \$0.43 to \$0.41 per contract is reasonable because decreasing the Priority Customer Taker Fees in Penny Symbols should incentivize GEMX Members to send additional order flow to GEMX.

GEMX’s proposal to decrease Penny Symbol Priority Customer Taker Fees

Tiers 1 through 4 from \$0.48 per contract to \$0.41 per contract and Penny Symbol Priority Customer Taker Fee Tier 5 from \$0.43 to \$0.41 per contract is equitable and not unfairly discriminatory because Priority Customer liquidity benefits all market participants by providing more trading opportunities, which attracts market makers. An increase in the activity of these market participants in turn facilitates tighter spreads, which may cause an additional corresponding increase in order flow from other market participants, to the benefit of all market participants.

#### *B. Self-Regulatory Organization’s Statement on Burden on Competition*

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

#### *Intermarket Competition*

The Exchange believes its proposal remains competitive with other options markets, and will offer market participants with another choice of venue to transact options. The Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive, or rebate opportunities available at other venues to be more favorable. Because competitors are free to modify their own fees in response, and because market participants may readily adjust their order routing practices, the Exchange believes that the degree to which fee changes in this market may impose any burden on competition is extremely limited.

#### *Intramarket Competition*

GEMX’s proposal to decrease Penny Symbol Priority Customer Taker Fees Tiers 1 through 4 from \$0.48 per contract to \$0.41 per contract and Penny Symbol Priority Customer Taker Fee Tier 5 from \$0.43 to \$0.41 per contract does not impose an undue burden on intermarket competition because Priority Customer liquidity benefits all market participants by providing more trading opportunities, which attracts market makers. An increase in the activity of these market participants in turn facilitates tighter spreads, which may cause an additional corresponding increase in order flow from other market participants, to the benefit of all market participants.

#### *C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

No written comments were either solicited or received.

#### **III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act.<sup>13</sup> At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

#### **IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

##### *Electronic Comments*

- Use the Commission’s internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR–GEMX–2023–07 on the subject line.

##### *Paper Comments*

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.
- All submissions should refer to File Number SR–GEMX–2023–07. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than

<sup>13</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>11</sup> See 15 U.S.C. 78f(b)(4) and (5).

<sup>12</sup> See *NetCoalition*, 615 F.3d at 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782–83 (December 9, 2008) (SR–NYSEArca–2006–21)).

those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to File Number SR-GEMX-2023-07 and should be submitted on or before June 13, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>14</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

[FR Doc. 2023-10906 Filed 5-22-23; 8:45 am]

BILLING CODE 8011-01-P

## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-97519; File No. SR-PEARL-2023-22]

### Self-Regulatory Organizations; MIAX PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by MIAX PEARL, LLC To Amend the MIAX Pearl Equities Fee Schedule

May 17, 2023.

Pursuant to the provisions of section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on May 9, 2023, MIAX PEARL, LLC ("MIAX Pearl" or "Exchange") filed with the Securities and Exchange Commission ("Commission") a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the fee schedule (the "Fee Schedule") applicable to MIAX Pearl Equities, an equities trading facility of the Exchange.

The text of the proposed rule change is available on the Exchange's website at <http://www.miaxoptions.com/rule-filings/pearl> at MIAX Pearl's principal office, and at the Commission's Public Reference Room.

#### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

##### A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

###### 1. Purpose

The Exchange proposes to amend the Fee Schedule to: (i) reduce the fees for orders in securities priced at or above \$1.00 per share that are routed to the primary listing market's opening or re-opening process pursuant to the Route to Primary Auction ("PAC") routing option;<sup>3</sup> and (ii) reduce the fees for orders in securities priced below \$1.00 per share that are routed to the primary listing market's opening or re-opening process pursuant to the PAC routing option. The Exchange initially filed this proposal on April 28, 2023, with the proposed fee changes effective beginning May 1, 2023 (SR-PEARL-2023-20). On May 9, 2023, the Exchange withdrew SR-PEARL-2023-20 and refiled this proposal as SR-PEARL-2023-22.

###### Background

The PAC routing option enables an Equity Member<sup>4</sup> to designate that their order be routed to the primary listing market to participate in the primary listing market's opening, re-opening or

closing process.<sup>5</sup> Exchange Rule 2617(b)(5)(B) provides that PAC is a routing option for Market Orders<sup>6</sup> and displayed Limit Orders<sup>7</sup> designated with a time-in-force of Regular Hours Only ("RHO")<sup>8</sup> that the entering firm wishes to designate for participation in the opening, re-opening (following a regulatory halt, suspension, or pause), or closing process<sup>9</sup> of a primary listing market (Cboe BZX Exchange, Inc. ("Cboe BZX"), the New York Stock Exchange LLC ("NYSE"), The Nasdaq Stock Market LLC ("Nasdaq"), NYSE American LLC ("NYSE American"), or NYSE Arca, Inc. ("NYSE Arca")), if received before the opening, re-opening, or closing process of such market. For displayed Limit Orders designated with the PAC routing option, any shares that remain unexecuted after attempting to execute in the primary listing market's opening or re-opening process will either be posted to the MIAX Pearl Equities Book, executed, or routed pursuant to the Price Improvement ("PI") routing option.<sup>10</sup>

The Exchange adopted the standard liquidity indicator code of "X" in its Fee Schedule for routed liquidity. This code applies to an order that is routed to and executed on an away market. Additionally, this code is used to identify orders that were routed to an away market (including orders that were routed using the PAC routing strategy) and executed as "Taker."

On July 5, 2022, the Exchange filed its proposal to, among other things, adopt new liquidity indicator codes and associated fees and rebates for orders that the Exchange routes pursuant to the PAC routing option.<sup>11</sup> In particular, the Exchange adopted the following liquidity indicator codes and associated fees for orders that the Exchange routes to the primary listing market's opening

<sup>5</sup> See Exchange Rule 2617(b)(5)(B).

<sup>6</sup> See Exchange Rule 2614(a)(2).

<sup>7</sup> See Exchange Rule 2614(a)(1).

<sup>8</sup> Exchange Rule 2614(b)(2) defines "Regular Hours Only" or "RHO" as "[a]n order that is designated for execution only during Regular Trading Hours, which includes the Opening Process for equity securities. An order with a time-in-force of RHO entered into the System before the opening of business on the Exchange as determined pursuant to Exchange Rule 2600 will be accepted but not eligible for execution until the start of Regular Trading Hours."

<sup>9</sup> The Exchange notes that it will route Market Orders to the primary listing market's closing process in certain limited circumstances. See Exchange Rule 2617(b)(5)(B)(1)(ii)(b).

<sup>10</sup> See Exchange Rule 2617(b)(5)(B)(1)(i)(a).

<sup>11</sup> See Securities Exchange Act Release No. 95210 (July 7, 2022), 87 FR 41750 (July 13, 2022) (SR-PEARL-2022-26).

<sup>14</sup> 17 CFR 200.30-3(a)(12).

<sup>15</sup> U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> See Exchange Rule 2617(b)(5)(B).

<sup>4</sup> The term "Equity Member" is a Member authorized by the Exchange to transact business on MIAX Pearl Equities. See Exchange Rule 1901.

or re-opening process pursuant to the PAC routing option:<sup>12</sup>

- Liquidity indicator code XC, Routed to NYSE, Opening/Re-Opening Auction. Orders that yield liquidity indicator code XC are charged a fee \$0.00105 per share in securities priced at or above \$1.00 and 0.30% of the transaction's dollar value in securities priced below \$1.00.

- Liquidity indicator code XF, Routed to NYSE Arca, Opening/Re-Opening Auction. Orders that yield liquidity indicator code XF are charged a fee of \$0.00155 per share in securities priced at or above \$1.00 and 0.105% of the transaction's dollar value in securities priced below \$1.00.

- Liquidity indicator code XI, Routed to NYSE American, Opening/Re-Opening Auction. Orders that yield liquidity indicator code XI are charged a fee of \$0.00055 per share in securities priced at or above \$1.00 and 0.055% of the transaction's dollar value in securities priced below \$1.00.

- Liquidity indicator code XL, Routed to Cboe BZX, Opening/Re-Opening Auction. Orders that yield liquidity indicator code XL are charged a fee of \$0.0008 per share in securities priced at or above \$1.00 and 0.08% of the transaction's dollar value in securities priced below \$1.00.

- Liquidity indicator code XO, Routed to Nasdaq, Opening/Re-Opening Auction. Orders that yield liquidity indicator code XO are charged a fee of \$0.00155 per share in securities priced at or above \$1.00 and 0.30% of the transaction's dollar value in securities priced below \$1.00.

#### Proposal To Reduce Fees for Orders in Securities Priced at or Above \$1.00 per Share

The Exchange now proposes to amend section (1)(b) of the Fee Schedule to reduce the fees for orders in securities priced at or above \$1.00 per share that are routed to the primary listing market's opening or re-opening process pursuant to the PAC routing option. Specifically, the Exchange proposes to amend the fees for Liquidity Indicator Codes XC, XF, XI, XL and XO for securities priced at or above \$1.00 per share from the current rates (described above) to now be \$0.00005 per share. With the proposed changes, for securities priced at or above \$1.00 per share: (i) the fee for Liquidity Indicator

Code XC will be reduced from \$0.00105 to \$0.00005 per share; (ii) the fee for Liquidity Indicator Code XF will be reduced from \$0.00155 to \$0.00005 per share; (iii) the fee for Liquidity Indicator Code XI will be reduced from \$0.00055 to \$0.00005 per share; (iv) the fee for Liquidity Indicator Code XL will be reduced from \$0.0008 to \$0.00005 per share; and (v) the fee for Liquidity Indicator Code XO will be reduced from \$0.00155 to \$0.00005 per share.

#### Proposal To Reduce Fees for Orders in Securities Priced Below \$1.00 per Share

The Exchange also proposes to amend section (1)(b) of the Fee Schedule to reduce the fees for orders in securities priced below \$1.00 per share that are routed to the primary listing market's opening or re-opening process pursuant to the PAC routing option. Specifically, the Exchange proposes to amend the fees for Liquidity Indicator Codes XC, XF, XI, XL and XO for securities priced below \$1.00 per share from the current rates (described above) to now be 0.00% of the total dollar value of the transaction. With the proposed changes, for securities priced below \$1.00 per share: (i) the fee for Liquidity Indicator Code XC will be reduced from 0.30% to 0.00% of the total dollar value of the transaction; (ii) the fee for Liquidity Indicator Code XF will be reduced from 0.105% to 0.00% of the total dollar value of the transaction; (iii) the fee for Liquidity Indicator Code XI will be reduced from 0.055% to 0.00% of the total dollar value of the transaction; (iv) the fee for Liquidity Indicator Code XL will be reduced from 0.08% to 0.00% of the total dollar value of the transaction; and (v) the fee for Liquidity Indicator Code XO will be reduced from 0.30% to 0.00% of the total dollar value of the transaction.

The purpose of the proposed changes to reduce the fees for all orders that are routed to the primary listing market's opening or re-opening process pursuant to the PAC routing option is for business and competitive reasons. The Exchange initially set such fees higher than, or similar to, the fees charged by competing equities exchanges for routing orders to the primary listing market's opening or re-opening process.<sup>13</sup> The Exchange believes its

proposal to reduce fees for all orders routed to the primary listing market's opening or re-opening process pursuant to the PAC routing option will encourage additional orders to be submitted to the Exchange with such designation, which should, in turn improve the Exchange's market quality. The Exchange believes that this will benefit all Equity Members by enhancing the attractiveness of the Exchange as a trading venue.

#### Implementation

The proposed changes are immediately effective.

#### 2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with section 6(b) of the Act<sup>14</sup> in general, and furthers the objectives of section 6(b)(4) of the Act<sup>15</sup> in particular, in that it is an equitable allocation of reasonable fees and other charges among its Equity Members and issuers and other persons using its facilities.

The Exchange operates in a highly fragmented and competitive market in which market participants can readily direct their order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient. More specifically, the Exchange is only one of sixteen registered equities exchanges, and there are a number of alternative trading systems and other off-exchange venues, to which market participants may direct their order flow. Based on publicly available information, no single registered equities exchange currently has more than approximately 15–16% of the total market share of executed volume of equities trading.<sup>16</sup> Thus, in such a low-concentrated and highly competitive market, no single equities exchange possesses significant pricing power in the execution of order flow, and the Exchange represents approximately 1.64% of the overall market share as of April 27, 2023, for the month of April 2023. The Commission and the courts have repeatedly expressed their preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. In Regulation NMS, the Commission highlighted the importance of market forces in determining prices

orders to Cboe BZX opening/re-opening auction; NYSE Arca fee of \$0.003 to route orders to Nasdaq auctions).

<sup>14</sup> 15 U.S.C. 78f(b).

<sup>15</sup> 15 U.S.C. 78f(b)(4).

<sup>16</sup> See the "Market Share" Section of the Exchange's website, available at <https://www.miaxglobal.com/> (last visited April 27, 2023).

<sup>12</sup> The Exchange notes that the proposed changes in this filing will not amend the fees or rebates for the following liquidity indicator codes that also correspond to orders routed away from the Exchange pursuant to the PAC routing option: XA, XB, XD, XE, XG, XH, XJ, XK, XM, XN, XP, XQ. See Fee Schedule, section (1)(b).

<sup>13</sup> See, e.g., Cboe BZX U.S. Equities Exchange Fee Schedule, Fees Codes and Associated Fees, available at [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/) (Cboe BZX fee of \$0.0015 to route orders to a listing market's opening or re-opening cross); NYSE Arca Equities Exchange Fee Schedule, Section V., Standard Rates-Routing, available at [https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE\\_Arca\\_Marketplace\\_Fees.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf) (NYSE Arca fee of \$0.001 to route orders to NYSE Auctions; NYSE Arca fee of \$0.003 to route

and SRO revenues and also recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”<sup>17</sup>

The Exchange believes that the ever-shifting market share among the exchanges from month to month demonstrates that market participants can shift order flow or discontinue to reduce use of certain categories of products, in response to new or different pricing structures being introduced into the market.

Accordingly, competitive forces constrain the Exchange’s transaction fees and rebates, and market participants can readily trade on competing venues if they deem pricing levels at those other venues to be more favorable.

The Exchange believes that its proposal to reduce the fees for all orders that are routed to the primary listing market’s opening or re-opening process pursuant to the PAC routing option is reasonable, equitable, and not unfairly discriminatory. The Exchange initially set such fees higher than, or similar to, the fees charged by competing equities exchanges for routing orders to the primary listing market’s opening or re-opening process.<sup>18</sup> The Exchange believes that its proposal to reduce such fees will encourage additional orders designated with the PAC routing option to be submitted to the Exchange, which should, in turn improve the Exchange’s market quality. The Exchange believes that this will benefit all Equity Members by enhancing the attractiveness of the Exchange as a trading venue.

The Exchange also believes that the proposed changes are equitable and not unfairly discriminatory as the lower fees would apply to all Equity Members that submit orders designated with the PAC routing option that route to the primary listing market’s opening or re-opening process. Further, routing through the Exchange is voluntary and the Exchange notes that it operates in a highly competitive market in which market participants can readily direct order flow to competing venues or providers of routing services if they deem fee levels to be excessive.

#### *B. Self-Regulatory Organization’s Statement on Burden on Competition*

The Exchange does not believe that the proposed change will impose any burden on competition not necessary or appropriate in furtherance of the

purposes of the Act. The Exchange believes that the proposed fees are competitive in that they provide lower fees for routing orders pursuant to the PAC routing option to a primary listing market’s opening or re-opening process as compared to competing exchanges. The Exchange notes that Equity Members may opt not to select the PAC routing option on orders submitted to the Exchange and accordingly will not incur the associated routing fees proposed herein.

#### *Intramarket Competition*

The Exchange does not believe that the proposal will impose any burden on intramarket competition not necessary or appropriate in furtherance of the purposes of the Act. The proposed fees are available to all similarly situated market participants, and, as such the proposed change would not impose a disparate burden on competition among market participants on the Exchange. Specifically, all Equity Members that use the PAC routing option will be subject to the same fees and rebates. As such the Exchange does not believe the proposed changes would impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purpose of the Act.

#### *Intermarket Competition*

The Exchange believes its proposal will benefit competition, and the Exchange notes that it operates in a highly competitive market. Equity Members have numerous alternative venues they may participate on and direct their order flow to, including fifteen other equities exchanges and numerous alternative trading systems and other off-exchange venues. As noted above, no single registered equities exchange currently has more than approximately 15–16% of the total market share of executed volume of equities trading.<sup>19</sup> Thus, in such a low-concentrated and highly competitive market, no single equities exchange possesses significant pricing power in the execution of order flow. Moreover, the Exchange believes that the ever-shifting market share among the exchanges from month to month demonstrates that market participants can shift order flow in response to new or different pricing structures being introduced to the market. Accordingly, the Exchange believes its proposal would not burden, but rather promote, intermarket competition by enabling it to better compete by providing lower

fees than competing exchanges that offer similar routing strategies.

#### *C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

Written comments were neither solicited nor received.

#### **III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

The foregoing rule change has become effective pursuant to section 19(b)(3)(A)(ii) of the Act,<sup>20</sup> and Rule 19b–4(f)(2)<sup>21</sup> thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

#### **IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

##### *Electronic Comments*

- Use the Commission’s internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR–PEARL–2023–22 on the subject line.

##### *Paper Comments*

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.
- All submissions should refer to File Number SR–PEARL–2023–22. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule

<sup>17</sup> See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37499 (June 29, 2005).

<sup>18</sup> See *supra* note 13.

<sup>19</sup> See *supra* note 16.

<sup>20</sup> 15 U.S.C. 78s(b)(3)(A)(ii).

<sup>21</sup> 17 CFR 240.19b–4(f)(2).

change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions. You should submit only information that you wish to make available publicly. The Commission may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to File Number SR-PEARL-2023-22, and should be submitted on or before June 13, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>22</sup>

**Sherry R. Haywood,**  
Assistant Secretary.

[FR Doc. 2023-10904 Filed 5-22-23; 8:45 am]

**BILLING CODE 8011-01-P**

## SMALL BUSINESS ADMINISTRATION

### Data Collection Available for Public Comments

**ACTION:** 60-Day notice and request for comments

**SUMMARY:** The Small Business Administration (SBA) intends to request approval, from the Office of Management and Budget (OMB) for the collection of information described below. The Paperwork Reduction Act (PRA) requires federal agencies to publish a notice in the **Federal Register** concerning each proposed collection of information before submission to OMB, and to allow 60 days for public comment in response to the notice. This notice complies with that requirement. **DATES:** Submit comments on or before July 24, 2023.

**ADDRESSES:** Send all comments to Paul Kirwin, Chief, Supervised Lender Oversight Division, Office of Credit Risk Management, Small Business Administration, Washington, DC 20416.

**FOR FURTHER INFORMATION CONTACT:** Paul Kirwin, Chief, Supervised Lender Oversight Division, Office of Credit Risk Management, [paul.kirwin@sba.gov](mailto:paul.kirwin@sba.gov), 202-205-7261, or Curtis B. Rich, Agency Clearance Officer, 202-205-7030, [curtis.rich@sba.gov](mailto:curtis.rich@sba.gov).

**SUPPLEMENTARY INFORMATION:** SBA regulations at 13 CFR 120.830 requires CDCs to submit an annual report which contains financial statements, operational and management information. This information is used by SBA's Office of Credit Risk Management, Office of Financial Assistance, and district offices to obtain information from the CDCs that used to evaluate whether CDC's are operating according to the status, regulations and policies governing the CDC loan program (504 program).

### Solicitation of Public Comments

SBA is requesting comments on (a) Whether the collection of information is necessary for the agency to properly perform its functions; (b) whether the burden estimates are accurate; (c) whether there are ways to minimize the burden, including through the use of automated techniques or other forms of information technology; and (d) whether there are ways to enhance the quality, utility, and clarity of the information.

### Summary of Information Collection

*OMB Control Number:* 3245-0074.  
*Title:* Certified Development Company (CDC) Annual Report Guide.  
*Description of Respondents:* Certified Development Companies.  
*Form Number:* SBA Form 1253.  
*Total Estimated Annual Responses:* 201.  
*Total Estimated Annual Hour Burden:* 5,628.

**Curtis B. Rich,**

Agency Clearance Officer.

[FR Doc. 2023-10922 Filed 5-22-23; 8:45 am]

**BILLING CODE 8026-09-P**

## SMALL BUSINESS ADMINISTRATION

### SBA Council on Underserved Communities Meeting

**AGENCY:** U.S. Small Business Administration (SBA).

**ACTION:** Notice of Federal advisory committee meeting.

**SUMMARY:** The SBA is issuing this notice to announce the location, date, time, and agenda for the fourth meeting of the SBA Council on Underserved Communities. The meeting will be in person for Council members and streamed live to the public.

**DATES:** The meeting will be held on Friday, June 9th, 2023, from 9 a.m. to 12:30 p.m. Eastern Time.

**ADDRESSES:** The Council on Underserved Communities will meet at TechTown—440 Burroughs St., Detroit, MI 48202 and will be live streamed on Zoom for the public. Registration Link Here: [https://www.zoomgov.com/webinar/register/WN\\_ZHcCxDO8Tg-MOMMer0D8Tg](https://www.zoomgov.com/webinar/register/WN_ZHcCxDO8Tg-MOMMer0D8Tg).

**FOR FURTHER INFORMATION CONTACT:** The meeting will be live streamed to the public, and anyone wishing to submit questions to the SBA Council on Underserved Communities can do so by submitting them via email to [underservedcouncil@sba.gov](mailto:underservedcouncil@sba.gov).

Additionally, if you need accommodations because of a disability or require additional information, please contact Tomas Kloosterman, SBA, Office of the Administrator, 409 Third Street SW, Washington, DC 20416, 202-941-8082 or [Tomas.Kloosterman@sba.gov](mailto:Tomas.Kloosterman@sba.gov).

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C., Appendix 2), SBA announces the meeting of the SBA Council on Underserved Communities (the "Council"). The Council is tasked with providing advice, ideas and opinions on SBA programs and services and issues of interest to small businesses in underserved communities. For more information, please visit <http://www.sba.gov/cuc>.

The purpose of the meeting is to provide the Council with information on SBA's efforts to support small businesses in underserved communities, as well as provide an opportunity for the Council to discuss its goals for the coming months. The Council will provide insights based on information they have heard from their communities and discuss areas of interest for further research and recommendation development.

Dated: May 17, 2022.

**Andrienne Johnson,**

SBA Committee Management Officer.

[FR Doc. 2023-10920 Filed 5-22-23; 8:45 am]

**BILLING CODE P**

## DEPARTMENT OF STATE

[Public Notice: 12084]

### Determination and Certification of Countries Not Cooperating Fully With Antiterrorism Efforts

Pursuant to section 40A of the Arms Export Control Act (22 U.S.C. 2781), and

<sup>22</sup> 17 CFR 200.30-3(a)(12).



Executive Order 13637, as amended, I hereby determine and certify to the Congress that the following countries are not cooperating fully With United States antiterrorism efforts: Cuba, Democratic People's Republic of Korea (DPRK, or North Korea), Iran, Syria, and Venezuela.

This determination and certification shall be transmitted to the Congress and published in the **Federal Register**.

Dated: May 8, 2023.

**Antony J. Blinken,**

*Secretary of State.*

[FR Doc. 2023-10903 Filed 5-22-23; 8:45 am]

**BILLING CODE 4710-AD-P**

## DEPARTMENT OF STATE

[Public Notice: 12081]

### 60-Day Notice of Proposed Information Collection: Request for Advisory Opinion

**ACTION:** Notice of request for public comment.

**SUMMARY:** The Department of State (Department) is seeking Office of Management and Budget (OMB) approval for the information collection described below. In accordance with the Paperwork Reduction Act of 1995, we are requesting comments on this collection from all interested individuals and organizations. The purpose of this notice is to allow 60 days for public comment preceding submission of the collection to OMB.

**DATES:** The Department will accept comments from the public up to July 24, 2023.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Web:** Persons with access to the internet may comment on this notice by going to [www.Regulations.gov](http://www.Regulations.gov). You can search for the document by entering "Docket Number: DOS-2023-0017" in the Search field. Then click the "Comment Now" button and complete the comment form.

- **Email:** [battistaal@state.gov](mailto:battistaal@state.gov).
- **Regular Mail:** Send written comments to: PM/DDTC 2401 E Street NW, Washington, DC 20037 H1204.

You must include the DS form number (if applicable), information collection title, and the OMB control number in any correspondence.

**FOR FURTHER INFORMATION CONTACT:** Direct requests for additional information regarding the collection listed in this notice, including requests for copies of the proposed collection instrument and supporting documents, to Andrea Battista, who may be reached

at [BattistaAL@state.gov](mailto:BattistaAL@state.gov) or 202-992-0973.

#### SUPPLEMENTARY INFORMATION:

**Request for Advisory Opinion.**

- **Title of Information Collection:**
- **OMB Control Number:** 1405-0174.
- **Type of Request:** Extension.
- **Originating Office:** Directorate of Defense Trade Controls, Bureau of Political Military Affairs, Department of State (T/PM/DDTC).

- **Form Number:** DS-7786.
- **Respondents:** Any person. Primarily, individuals and companies registered with DDTC and engaged in the business of manufacturing, brokering, exporting, or temporarily importing defense hardware or defense technology data.

- **Estimated Number of Respondents:** 125.

- **Estimated Number of Responses:** 125.

- **Average Time per Response:** 2 hours.

- **Total Estimated Burden Time:** 250 hours.

- **Frequency:** On occasion.
- **Obligation To Respond:** Voluntary.

We are soliciting public comments to permit the Department to:

- Evaluate whether the proposed information collection is necessary for the proper functions of the Department.

- Evaluate the accuracy of our estimate of the time and cost burden for this proposed collection, including the validity of the methodology and assumptions used.

- Enhance the quality, utility, and clarity of the information to be collected.

- Minimize the reporting burden on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Please note that comments submitted in response to this Notice are public record. Before including any detailed personal information, you should be aware that your comments as submitted, including your personal information, will be available for public review.

#### Abstract of Proposed Collection

The Directorate of Defense Trade Controls (DDTC), located in the Political-Military Affairs Bureau of the Department of State, has the principal mission of licensing the export and temporary import of defense articles or defense services as enumerated in the United States Munitions List (USML), and to ensure that the sale, transfer, or brokering of such items are in the interest of United States national security and foreign policy.

Sections 120.22 and 129.9 of the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120-130) may be used to request an advisory opinion or guidance on: whether DDTC would likely grant a license or other approval for the export of a particular defense article or defense service to a particular country (§ 120.22(a)); an interpretation of the requirements set forth in the regulations (§ 120.22(c)); whether an activity constitutes brokering within the scope of part 129—Registration and Licensing of Brokers (§ 129.9(a)); or other guidance on other aspects of part 129 (§ 129.9(c)). Except for determinations made with reference to ITAR § 129.9(a), advisory opinions are not binding on the Department of State and may not be used in future matters before the Department.

Users electronically submit requests for advisory opinions to DDTC via the Defense Export Control and Compliance System (DECCS) portal; users are able to retrieve responses using this same system. DDTC staff members have defined the data fields which are most relevant and necessary for requests for advisory opinions and developed the means to accept this information from the industry in a secure system. The revision of this information collection is meant to conform the current OMB-approved data collection to DDTC's new case management system.

#### Methodology

This information will be collected by electronic submission to the Directorate of Defense Trade Controls.

**Kevin E. Bryant,**

*Deputy Director, Office of Directives Management, Department of State.*

[FR Doc. 2023-10811 Filed 5-22-23; 8:45 am]

**BILLING CODE 4710-25-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

[Docket No.: FAA-2022-1607; Summary Notice No. 2023-13]

#### Petition for Exemption; Summary of Petition Received; LAN Cargo S.A.

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice.

**SUMMARY:** This notice contains a summary of a petition seeking relief from specified requirements of Federal Aviation Regulations. The purpose of this notice is to improve the public's awareness of, and participation in, the

FAA's exemption process. Neither publication of this notice nor the inclusion nor omission of information in the summary is intended to affect the legal status of the petition or its final disposition.

**DATES:** Comments on this petition must identify the petition docket number and must be received on or before June 12, 2023.

**ADDRESSES:** Send comments identified by docket number FAA-2022-1607 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- *Mail:* Send comments to Docket Operations, M-30; U.S. Department of Transportation, 1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to Docket Operations at (202) 493-2251.

*Privacy:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to <http://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <http://www.dot.gov/privacy>.

*Docket:* Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Sean O'Tormey at 202-267-4044, Office of Rulemaking, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591.

This notice is published pursuant to 14 CFR 11.85.

Issued in Washington, DC.

**Angela O. Anderson,**

*Director, Regulatory Support Division, Office of Rulemaking.*

#### Petition for Exemption

*Docket No.:* FAA-2022-1607.

*Petitioner:* LAN Cargo S.A.

*Section(s) of 14 CFR Affected:*

§§ 61.77(a), 61.3(a)(1).

*Description of Relief Sought:*

Petitioner seeks an exemption from § 61.77(a) to allow three of its pilots who hold the appropriate pilot certificates and ratings from the Chilean Civil Aviation Authority (CAA) to conduct the following non-revenue flights with Boeing 767 aircraft without a Special Permit Purpose Authorization: (1) delivery flights of N-registered aircraft, (2) maintenance ferry or repositioning of N-registered aircraft to and from the United States, and (3) maintenance ferry or repositioning of N-registered aircraft to and from third countries outside the United States.

[FR Doc. 2023-10969 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

[Docket No.: FAA-2023-0857; Summary Notice No. 2023-17]

#### Petition for Exemption; Summary of Petition Received; Jet-A, LLC

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice.

**SUMMARY:** This notice contains a summary of a petition seeking relief from specified requirements of Federal Aviation Regulations. The purpose of this notice is to improve the public's awareness of, and participation in, the FAA's exemption process. Neither publication of this notice nor the inclusion nor omission of information in the summary is intended to affect the legal status of the petition or its final disposition.

**DATES:** Comments on this petition must identify the petition docket number and must be received on or before June 12, 2023.

**ADDRESSES:** Send comments identified by docket number FAA-2023-0857 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- *Mail:* Send comments to Docket Operations, M-30; U.S. Department of

Transportation, 1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to Docket Operations at (202) 493-2251.

*Privacy:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to <http://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <http://www.dot.gov/privacy>.

*Docket:* Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Sean O'Tormey at 202-267-4044, Office of Rulemaking, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591.

This notice is published pursuant to 14 CFR 11.85.

Issued in Washington, DC.

**Angela O. Anderson,**

*Director, Regulatory Support Division, Office of Rulemaking.*

#### Petition for Exemption

*Docket No.:* FAA-2023-0857.

*Petitioner:* Jet-A, LLC.

*Section(s) of 14 CFR Affected:* § 135.341.

*Description of Relief Sought:*

Petitioner requests the limited ability to use aircraft-specific training and qualification for initial training and qualification of new-hire pilots provided by a different part 135 air carrier where the aircraft-specific programs required by § 135.341 can be shown to be identical, including § 135.293(a)(2), § 135.293(a)(3), § 135.293(b), and § 135.297 checks.

[FR Doc. 2023-10970 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****Notice of Availability of Draft Air Tour Management Plans and Draft Environmental Assessments (EA) and Public Meetings; Correction**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice; correction.

**SUMMARY:** The Federal Aviation Administration, in cooperation with the National Park Service, published a document in the **Federal Register** on May 18, 2023, regarding the development of Air Tour Management Plans for Haleakalā National Park, Hawai'i Volcanoes National Park, Mount Rushmore National Memorial, and Badlands National Park pursuant to the National Parks Air Tour Management Act of 2000 and its implementing regulations. The document contained incorrect dates regarding the comment deadlines on the draft ATMPs and draft EAs.

**FOR FURTHER INFORMATION CONTACT:** Sandra Fox, (202) 267-0928, [Sandra.Y.Fox@faa.gov](mailto:Sandra.Y.Fox@faa.gov).

**SUPPLEMENTARY INFORMATION:****Correction**

In the **Federal Register** of May 18, 2023, in FR Doc. 2023-10622, on page 31840, in the third column, correct the **DATES** caption to read: COMMENT PERIOD DATES: For Haleakalā and Hawai'i Volcanoes National Parks, comments must be received on or before June 20, 2023, by 8:00 p.m. HST. For Mount Rushmore National Memorial and Badlands National Park, comments must be received on or before June 20, 2023, by 11:59 MDT.

Issued in Washington, DC, on May 18, 2023.

**Sandra Fox,**

*Environmental Protection Specialist, FAA Office of Environment & Energy.*

[FR Doc. 2023-10975 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration**

[Docket No.: FAA-2022-1829; Summary Notice No.-2023-05]

**Petition for Exemption; Summary of Petition Received; Frank G. Satko**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice.

**SUMMARY:** This notice contains a summary of a petition seeking relief from specified requirements of Federal Aviation Regulations. The purpose of this notice is to improve the public's awareness of, and participation in, the FAA's exemption process. Neither publication of this notice nor the inclusion nor omission of information in the summary is intended to affect the legal status of the petition or its final disposition.

**DATES:** Comments on this petition must identify the petition docket number and must be received on or before June 12, 2023.

**ADDRESSES:** Send comments identified by docket number FAA-2022-1829 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M-30; U.S. Department of Transportation, 1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at (202) 493-2251.

*Privacy:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to <http://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <http://www.dot.gov/privacy>.

*Docket:* Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Nia Daniels, (202) 267-7626, Office of Rulemaking, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591.

This notice is published pursuant to 14 CFR 11.85.

Issued in Washington, DC.

**Angela O. Anderson,**

*Director, Regulatory Support Division, Office of Rulemaking.*

**Petition for Exemption**

*Docket No.:* FAA-2022-1829.

*Petitioner:* Frank G. Satko.

*Section of 14 CFR Affected:*

§ 61.113(i)(1).  
*Description of Relief Sought:* Mr. Frank G. Satko petitions for an exemption from Title 14 Code of Federal Regulations § 61.113(i)(1) that will allow him to fly an aircraft over 6,000 lbs, while using a BasicMed qualification.

[FR Doc. 2023-10953 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Highway Administration**

[Docket No. FHWA-2125-0018]

**Agency Information Collection**

**Activities: Request for Comments for a Revision of a Currently Approved Collection; State Right-of-Way Manuals, OMB Control Number 2125-0586**

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice and request for comments.

**SUMMARY:** The FHWA invites public comments about our intention to request the Office of Management and Budget's (OMB) approval for a revision of a currently approved collection, which is summarized below under

**SUPPLEMENTARY INFORMATION.** We are required to publish this notice in the **Federal Register** by the Paperwork Reduction Act of 1995.

**DATES:** Please submit comments by July 24, 2023.

**ADDRESSES:** You may submit comments identified by DOT Docket ID 2125-0018 by any of the following methods:

*Website:* For access to the docket to read background documents or comments received go to the Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.

*Fax:* 1-202-493-2251.

*Mail:* Docket Management Facility, U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

*Hand Delivery or Courier:* U.S. Department of Transportation, West

Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:**

Melissa Corder, 202-366-5853, Office of Real Estate Services, Federal Highway Administration, Department of Transportation, 1200 New Jersey Ave. SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

*Title:* State Right-of-Way Operations Manuals.

*Background:* It is the responsibility of each State Department of Transportation (State) to acquire, manage and dispose of real property in compliance with the legal requirements of State and Federal laws and regulations. Part of providing assurance of compliance is to describe in a right-of-way procedural (operations) manual the organization, policies and procedures of the State to such an extent that these guide State employees, local acquiring agencies, and contractors who acquire and manage real property that is used for a federally funded transportation project. Procedural manuals assure the FHWA that the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) will be met. The State responsibility to prepare and maintain an up-to-date, right-of-way procedural manual is set out in 23 CFR 710.201(c). The regulation allows States flexibility in determining how to meet the manual requirement. This flexibility allows States to prepare manuals in the format of their choosing, to the level of detail necessitated by State complexities. Each State decides how it will provide service to individuals and businesses affected by Federal or federally-assisted projects, while at the same time reducing the burden of government regulation. States are required to update manuals to reflect changes in Federal requirements for programs administered under Title 23 U.S.C. In addition to the annual updates, further lengthy updates of each manual will be required due to the amending of 23 CFR 710 and 49 CFR 24 regulations, as prompted by the enactment of the Moving Ahead for Progress in the 21st Century Act (MAP-21). The updated State manuals may be submitted to FHWA electronically or made available by posting on the State website.

*Respondents:*

*Regular update of manual*—52 State Departments of Transportation,

including the District of Columbia and Puerto Rico (52 respondents).

*23 CFR 710 regulatory revisions*—52 State Departments of Transportation, including District of Columbia and Puerto Rico (52 respondents).

*49 CFR 24 regulatory revisions*—two additional DOT Modes with 50 large grantees each (100 respondents) & 12 additional agencies with 12 grantees (12 respondents) 112 respondents.

*Frequency:*

*Regular update of manual*—Annual basis and certify every 5 years.

*23 CFR 710 regulatory revisions*—a one-time collection.

*49 CFR 24 regulatory revisions*—a one-time collection.

*Estimated Average Burden per Response:*

*Regular update of manual*—15 hours.

*23 CFR 710 regulatory revisions*—225 hours.

*49 CFR 24 regulatory revisions*—225 hours.

*Estimated Total Annual Burden Hours:*

*Regular update of manual:* 52 respondents × 15 hours = 780 burden hours.

*23 CFR 710 regulatory revisions:* 52 respondents × 225 hours = 11,700 burden hours.

*49 CFR 24 regulatory revisions:* 112 respondents × 225 hours = 25,200 burden hours.

*Total:* 780 hrs. + 11,700 hrs. + 25,200 hrs. = 37,680 total burden hours.

*Public Comments Invited:* You are asked to comment on any aspect of this information collection, including: (1) Whether the proposed collection is necessary for the FHWA's performance; (2) the accuracy of the estimated burdens; (3) ways for the FHWA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized, including the use of electronic technology, without reducing the quality of the collected information. The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

*Authority:* The Paperwork Reduction Act of 1995; 44 U.S.C. chapter 35, as amended; and 49 CFR 1.48.

Issued On: May 17, 2023.

**Michael Howell,**

*Information Collection Coordinator.*

[FR Doc. 2023-10916 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-22-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Highway Administration**

[Docket No. FHWA-2023-0019]

**Agency Information Collection**

**Activities: Request for Comments for a New Information Collection**

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice and request for comments.

**SUMMARY:** The FHWA invites public comments about our intention to request the Office of Management and Budget's (OMB) approval for a new information collection, which is summarized below under **SUPPLEMENTARY INFORMATION**. We are required to publish this notice in the **Federal Register** by the Paperwork Reduction Act of 1995.

**DATES:** Please submit comments by July 24, 2023.

**ADDRESSES:** You may submit comments identified by DOT Docket ID 2023-0019 by any of the following methods:

*Website:* For access to the docket to read background documents or comments received go to the Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.

*Fax:* 1-202-493-2251.

*Mail:* Docket Management Facility, U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

*Hand Delivery or Courier:* U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:**

Melissa Corder, 202-366-5853, [melissa.corder@dot.gov](mailto:melissa.corder@dot.gov); Office of Real Estate Services, Federal Highway Administration, Department of Transportation, New Jersey Avenue SE, Washington, DC 20590-0001. Office hours are from 6:15 a.m. to 3:45 p.m., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

*Title:* Fixed Residential Moving Cost Schedule.

*Background:* Relocation assistance payments to owners and tenants who move personal property for a Federal or federally-assisted program or project are governed by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). 49 Code of

Federal Regulations (CFR), part 24, is the implementing regulation for the Uniform Act. 49 CFR 24.301 addresses payments for actual and reasonable moving and related expenses. The fixed residential moving cost schedule is an administrative alternative to reimbursement of actual moving costs. This option provides flexibility for the agency and affected property owners and tenants. The FHWA requests the State Departments of Transportation (State DOTs) to analyze moving cost data periodically to assure that the fixed residential moving cost schedules accurately reflect reasonable moving and related expenses. The regulation allows State DOTs flexibility in determining how to collect the cost data in order to reduce the burden of government regulation. Updated State fixed residential moving costs are submitted to the FHWA electronically.

*Respondents:* State Departments of Transportation (52, including the District of Columbia and Puerto Rico).

*Frequency:* Once every 3 years.

*Estimated Average Burden per Response:* 24 hours per respondent.

*Estimated Total Annual Burden Hours:* 24 hours for each of the 52 State Departments of Transportation. The total is 1,248 burden hours, once every 3 years, or 416 hours annually.

*Public Comments Invited:* You are asked to comment on any aspect of this information collection, including: (1) Whether the proposed collection is necessary for the FHWA's performance; (2) the accuracy of the estimated burdens; (3) ways for the FHWA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized, including the use of electronic technology, without reducing the quality of the collected information. The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

*Authority:* The Paperwork Reduction Act of 1995; 44 U.S.C. chapter 35, as amended; and 49 CFR 1.48.

Issued On: May 17, 2023.

**Michael Howell,**

*Information Collection Officer.*

[FR Doc. 2023-10917 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-22-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

#### Notice of Funding Opportunity for Rail Research and Development Center of Excellence; Correction

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Notice of funding opportunity (NOFO or notice); correction.

**SUMMARY:** FRA published a notice of funding opportunity for the Rail Research and Development Center of Excellence Program in the **Federal Register** on May 2, 2023. The notice contained an incorrect date for the application submission period.

**FOR FURTHER INFORMATION CONTACT:** For further information related to this notice and the Rail Research and Development Center of Excellence Program, please contact Tarek Omar, Office of Research, Development, and Technology, by email: [tarek.omar@dot.gov](mailto:tarek.omar@dot.gov) or by telephone: (202) 493-6189.

#### SUPPLEMENTARY INFORMATION:

##### Correction

In the **Federal Register**, of May 2, 2023, on page 27560, in the second column, correct the **DATES** column to read:

**DATES:** Applications that are incomplete or received after 5:00 p.m. ET on July 3, 2023 will not be considered for funding.

Issued in Washington, DC.

**Michael W. Lestingi,**

*Executive Director.*

[FR Doc. 2023-10959 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-06-P**

## DEPARTMENT OF TRANSPORTATION

### Maritime Administration

[Docket No. DOT-MARAD-2023-0101]

#### Request for Comments on the Renewal of a Previously Approved Information Collection: Application and Reporting Elements for Participation in the Tanker Security Program

**AGENCY:** Maritime Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Maritime Administration (MARAD) invites public comments on our intention to request the Office of Management and Budget (OMB) approval to renew an information collection. The proposed collection OMB 2133-0554 (Application and Reporting Elements for Participation in the Tanker Security Program) will be

used to evaluate the eligibility of the applicant for participation in the Tanker Security Program (TSP). A minor change request to include a privacy act statement for the collection of personally identifiable information will be added to the form for this collection. We are required to publish this notice in the **Federal Register** by the Paperwork Reduction Act of 1995. A 60-day **Federal Register** Notice soliciting comments on this information collection was published on March 20, 2023.

**ADDRESSES:** Written comments and recommendations for the proposed information collections should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under 30-day Review—Open for Public Comments" or by using the search function.

**FOR FURTHER INFORMATION CONTACT:** David Hatcher, Office of Sealift Support, Department of Transportation, Maritime Administration, 1200 New Jersey Avenue SE, Washington, DC, telephone: 202-366-0688, email: [David.Hatcher1@dot.gov](mailto:David.Hatcher1@dot.gov).

#### SUPPLEMENTARY INFORMATION:

*Title:* Application and Reporting Elements for Participation in the Tanker Security Program.

*OMB Control Number:* 2133-0554.

*Type of Request:* Renewal of a previously approved information collection.

*Abstract:* The National Defense Authorization Act for Fiscal Year 2021 (FY21 NDAA) authorized the Secretary of Transportation to establish the Tanker Security Program (TSP) comprised of a fleet of active, commercially viable, militarily useful, privately owned product tank vessels of the United States. The fleet will meet national defense and other security requirements and maintain a United States presence in international commercial shipping. The National Defense Authorization for Fiscal Year 2022 (FY22 NDAA) made minor adjustments related to the participation of long-term charters in the TSP. OMB 2133-0554 (Application and Reporting Elements for Participation in the Tanker Security Program) provides for enrollment of eligible tank vessels in the program for FY 2022 through FY 2035.

This information collection supports the Department of Transportation's strategic goal for National Security. A fuel tanker study required by the fiscal year 2020 National Defense Authorization Act (FY20 NDAA) examined the sufficiency of the U.S.-

flagged tanker fleet to meet National Defense Strategy (NDS) requirements. The report's summary found there to be a substantial risk to the nation's defense associated with a heavy reliance on foreign-flagged tankers, particularly within a contested environment. The location, timing, and specific missions associated with some tanker requirements dictate the need for U.S.-flagged assets, for which there currently are insufficient numbers available. The report's gap analysis found a clear and critical need for a tanker security program to increase U.S.-flagged tanker capacity, to reduce the risk of reliance on foreign-flagged tankers for the most important fuel missions, and to ensure the Department of Defense (DoD) has sufficient tanker capabilities to meet NDS objectives. In response to the FY20 NDAA Fuel Tanker Study, Congress directed in the FY21 NDAA, with minor adjustments in the FY22 NDAA, that the Secretary of Transportation, in consultation with the Secretary of Defense, establish a fleet of active, commercially viable, militarily useful, privately owned product tanker vessels to meet national defense and other security requirements and maintain a United States presence in international commercial shipping. The Maritime Administration worked with the DoD's United States Transportation Command to identify and shape TSP requirements and timelines.

*Respondents:* Vessel Owners.

*Affected Public:* Business Assistance, Water Transportation Operations, Merchant Marine.

*Estimated Number of Respondents:* 10.

*Estimated Number of Responses:* 160.

*Estimated Hours per Response:* 1.75.

Annual Estimated Total Annual Burden Hours: 280.

*Frequency of Response:* Annual.

(Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. chapter 35, as amended; and 49 CFR 1.49.)

By Order of the Maritime Administrator.

**T. Mitchell Hudson, Jr.,**

Secretary, Maritime Administration.

[FR Doc. 2023-10978 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-81-P**

## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

[Docket No. NHTSA-2022-0092; Notice 1]

#### Premiori LLC, Receipt of Petition for Decision of Inconsequential Noncompliance

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Receipt of petition.

**SUMMARY:** Premiori, LLC, (Premiori), has determined that certain Premiorri Solazo replacement passenger car tires do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 139, *New Pneumatic Radial Tires for Light Vehicles*. Premiori filed an original noncompliance report dated June 28, 2022, and amended the report on October 27, 2022. Premiori petitioned NHTSA on July 7, 2022, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety. This document announces receipt of Premiori's petition.

**DATES:** Send comments on or before June 22, 2023.

**ADDRESSES:** Interested persons are invited to submit written data, views, and arguments on this petition. Comments must refer to the docket and notice number cited in the title of this notice and may be submitted by any of the following methods:

- **Mail:** Send comments by mail addressed to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- **Hand Delivery:** Deliver comments by hand to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590. The Docket Section is open on weekdays from 10 a.m. to 5 p.m. except for Federal Holidays.

- **Electronically:** Submit comments electronically by logging onto the Federal Docket Management System (FDMS) website at <https://www.regulations.gov/>. Follow the online instructions for submitting comments.

- Comments may also be faxed to (202) 493-2251.

Comments must be written in the English language, and be no greater than 15 pages in length, although there is no limit to the length of necessary attachments to the comments. If

comments are submitted in hard copy form, please ensure that two copies are provided. If you wish to receive confirmation that comments you have submitted by mail were received, please enclose a stamped, self-addressed postcard with the comments. Note that all comments received will be posted without change to <https://www.regulations.gov>, including any personal information provided.

All comments and supporting materials received before the close of business on the closing date indicated above will be filed in the docket and will be considered. All comments and supporting materials received after the closing date will also be filed and will be considered to the fullest extent possible.

When the petition is granted or denied, notice of the decision will also be published in the **Federal Register** pursuant to the authority indicated at the end of this notice.

All comments, background documentation, and supporting materials submitted to the docket may be viewed by anyone at the address and times given above. The documents may also be viewed on the internet at <https://www.regulations.gov> by following the online instructions for accessing the dockets. The docket ID number for this petition is shown in the heading of this notice.

DOT's complete Privacy Act Statement is available for review in a **Federal Register** notice published on April 11, 2000 (65 FR 19477-78).

**FOR FURTHER INFORMATION CONTACT:** Jayton Lindley, Safety Compliance Engineer, Office of Vehicle Safety Compliance, NHTSA, (325) 655-0547.

#### SUPPLEMENTARY INFORMATION:

I. **Overview:** Premiori determined that certain Premiorri Solazo replacement passenger car tires do not fully comply with paragraphs S5.5(a) and S5.5.1 of FMVSS No. 139, *New Pneumatic Radial Tires for Light Vehicles* (49 CFR 571.139).

Premiori filed an original noncompliance report dated June 28, 2022, and amended the report on October 27, 2022, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports*. Premiori petitioned NHTSA on July 7, 2022, for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential as it relates to motor vehicle safety, pursuant to 49 U.S.C. 30118(d) and 30120(h) and 49 CFR part 556, *Exemption for Inconsequential Defect or Noncompliance*.

This notice of receipt of Premiori's petition is published under 49 U.S.C. 30118 and 30120 and does not represent any agency decision or another exercise of judgment concerning the merits of the petition.

II. *Tires Involved*: Approximately 8 Premiorri Solazo passenger car tires size 175/65R14 82H, manufactured between February 7, 2021, and April 30, 2021, are potentially involved.

III. *Noncompliance*: Premiori explains that the noncompliance is due to a mold error in which the subject tires do not have the required DOT symbol and the full or partial tire identification number (TIN) on one of the two sidewalls and therefore, do not comply with paragraph S5.5(a) of FMVSS No. 139. The tires do have the required DOT symbol (and TIN) on the other sidewall.

IV. *Rule Requirements*: Paragraphs S5.5(a) and S5.5.1 of FMVSS No. 139 include the requirements relevant to this petition. Paragraph S5.5(a) requires each tire to be marked on each side wall with the symbol DOT, which constitutes a certification that the tire conforms to applicable FMVSSs. Paragraph S5.5.1 requires each tire to be labeled with the TIN required by 49 CFR part 574 on the intended outboard sidewall of the tire. Specifically, either the TIN or partial TIN, containing all characters in the TIN, except for the date code and, at the discretion of the manufacturer, any optional code, must be labeled on the other sidewall of the tire.

V. *Summary of Premiori's Petition*: The following views and arguments presented in this section, "V. Summary of Premiori's Petition," are the views and arguments provided by Premiori. They have not been evaluated by the Agency and do not reflect the views of the Agency. Premiori describes the subject noncompliance and contends that the noncompliance is inconsequential as it relates to motor vehicle safety.

On February 17, 2022, Premiori says it received an information request from NHTSA regarding the subject noncompliance. As a result of the information request from NHTSA, Premiori inspected the molds used for the subject tires. Premiori's investigation found that one (1) of the four molds that were used for the subject tires did not have the DOT marking or TIN on one sidewall. Premiori provided information showing that the subject tires met all other labeling requirements of S5.5(a)-(i), including the symbol DOT a full TIN on one of the two sidewalls. Premiori believes that there are no safety risks associated with the affected tires stated that they have "taken corrective actions

regarding this noncompliance" and all four (4) tire molds now are fully compliant.

Premiori concludes by stating its belief that the subject noncompliance is inconsequential as it relates to motor vehicle safety and its petition to be exempted from providing notification of the noncompliance, as required by 49 U.S.C. 30118, and a remedy for the noncompliance, as required by 49 U.S.C. 30120, should be granted.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, any decision on this petition only applies to the subject tires that Premiori no longer controlled at the time it determined that the noncompliance existed. However, any decision on this petition does not relieve equipment distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant tires under their control after Premiori notified them that the subject noncompliance existed.

(Authority: 49 U.S.C. 30118, 30120; delegations of authority at 49 CFR 1.95 and 501.8)

**Otto G. Matheke, III,**

*Director, Office of Vehicle Safety Compliance.*

[FR Doc. 2023-10918 Filed 5-22-23; 8:45 am]

**BILLING CODE 4910-59-P**

## DEPARTMENT OF VETERANS AFFAIRS

### Solicitation of Nominations for Appointment to the Veterans' Family, Caregiver and Survivor Advisory Committee

**ACTION:** Notice.

**SUMMARY:** The Department of Veterans Affairs (VA) is seeking nominations of qualified candidates to be considered for appointment to the Veterans' Family, Caregiver and Survivor Advisory Committee (hereinafter in this section referred to as "the Committee").

**DATES:** Nominations for membership on the Committee must be received no later than 5:00 p.m. EST on June 15, 2023.

**ADDRESSES:** All nominations should be sent electronically to the Veterans' Family, Caregiver and Survivor email

mailbox at [vha12cspfac@va.gov](mailto:vha12cspfac@va.gov) with a subject line: Nomination to VFCSAC.

**FOR FURTHER INFORMATION CONTACT:** Dr. Betty Moseley Brown, Designated Federal Officer, Department of Veterans Affairs, 210-392-2505 or at [Betty.MoseleyBrown@va.gov](mailto:Betty.MoseleyBrown@va.gov).

**SUPPLEMENTARY INFORMATION:** The Veterans' Family, Caregiver and Survivor Advisory Committee was established to provide advice to the Secretary of Veterans Affairs with respect to the administration of benefits by the Department of Veterans Affairs (VA) for services to Veterans' families, caregivers and survivors.

**Authority:** The Committee was established by the directive of the Secretary of VA, in accordance with the provisions of the Federal Advisory Committee Act, as amended, 5 U.S.C. Ch. 10. The Committee responsibilities include providing a report to the Secretary not later than July 1 of each even-numbered year, which includes:

(1) An assessment of the needs, support and services for Veterans' families, caregivers and/or survivors across all generations and service eras;

(2) A review of the programs and activities of the Department designed to meet such needs;

(3) Find and provide opportunities to further integrate Veterans' families, caregivers and survivors into VA's systems of care, including recommendations on how VA can improve and/or expand delivery of Veterans Health Administration, Veterans Benefits Administration and National Cemetery Administration services and benefits; and,

(4) Such recommendations (including recommendations for administrative and legislative action) as the Committee considers appropriate.

**Membership Criteria and Qualifications:** VA is requesting nominations for Committee membership. The Committee is composed of not more than 20 members and several ex-officio members. The members of the Committee are appointed by the Secretary of Veteran Affairs from the general public, from various sectors and organizations, including but not limited to:

a. Veteran's family members, caregivers and survivors and stakeholders with an interest or expertise in these areas, and other subject matter experts;

b. Caregivers;

c. Veteran-focused organizations;

d. Military history and academic communities;

e. Veteran Service Organizations;

f. Military Service Organizations;



g. National Association of State Directors of Veterans Affairs;

h. Non-profit, private and corporate partners;

i. The Federal Executive Branch;

j. Research experts and service providers; and

k. Leaders of key stakeholder associations and organizations.

In accordance with the Committee Charter, the Secretary shall determine the number (up to 20), terms of service, and pay and allowances of Committee members, except that a term of service of any such member may not exceed two years. The Secretary may reappoint any Committee member for additional terms of service.

To the extent possible, the Secretary seeks members who have diverse professional and personal qualifications including but not limited to subject matter experts in the areas described above. We ask that nominations include any relevant experience information so that VA can ensure diverse Committee membership.

*Requirements for Nomination Submission:*

Nominations should be typed (one nomination per nominator). Self nominations are acceptable. Nomination package should include:

(1) A letter of nomination that clearly states the name and affiliation of the nominee, the basis for the nomination (*i.e.* specific attributes which qualify the nominee for service in this capacity) and a statement from the nominee indicating a willingness to serve as a member of the Committee;

(2) The nominee's contact information, including name, mailing address, telephone numbers and email address;

(3) The nominee's curriculum vitae, not to exceed three pages and a one-page cover letter; and

(4) A summary of the nominee's experience and qualifications relative to the membership consideration described above.

Individuals selected for appointment to the Committee shall be invited to serve a two-year term. Committee

members will receive per diem and reimbursement for eligible travel expenses incurred.

The Department makes every effort to ensure that the membership of VA Federal advisory committees is diverse in terms of points of view represented and the committee's capabilities. Appointments to this Committee shall be made without discrimination because of a person's race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or genetic information. Nominations must state that the nominee is willing to serve as a member of the Committee and appears to have no conflict of interest that would preclude membership. An ethics review is conducted for each selected nominee.

Dated: May 17, 2023.

**Jelessa M. Burney,**

*Federal Advisory Committee Management Officer.*

[FR Doc. 2023-10878 Filed 5-22-23; 8:45 am]

**BILLING CODE P**



# FEDERAL REGISTER

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Part II

Department of the Interior

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Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Miami Tiger Beetle; Final Rule

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

[Docket No. FWS-R4-ES-2021-0053;  
FF09E21000 FXES1111090000 234]

RIN 1018-BF38

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Miami Tiger Beetle**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Miami tiger beetle (*Cicindelia floridana*) under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 1,869 acres (756 hectares) in Miami-Dade County, Florida, fall within the boundaries of the critical habitat designation. This rule extends the Act's protections to the Miami tiger beetle's critical habitat.

**DATES:** This rule is effective June 22, 2023.

**ADDRESSES:** This final rule is available on the internet at <https://www.regulations.gov> and <https://www.fws.gov/office/florida-ecological-services/library>. Comments and materials we received, as well as supporting documentation we used in preparing this rule, are available for public inspection at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053.

For the critical habitat designation, the coordinates or plot points or both from which the maps are generated are included in the decision file and are available at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053, at <https://www.fws.gov/office/florida-ecological-services/library>, and at the Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

**FOR FURTHER INFORMATION CONTACT:** Lourdes Mena, Division Manager, Florida Classification and Recovery, U.S. Fish and Wildlife Service, Florida Ecological Services Field Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL 32256-7517; telephone 904-731-3134. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TTDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make

international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:****Executive Summary**

*Why we need to publish a rule.* Under the Act, any species that is determined to be an endangered or a threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

*What this document does.* We are designating critical habitat for the Miami tiger beetle, which is listed as an endangered species.

*The basis for our action.* Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

**Previous Federal Actions**

Please refer to the final rule to list the Miami tiger beetle as an endangered species (81 FR 68985; October 5, 2016) and the proposed rule to designate critical habitat for the Miami tiger beetle (86 FR 49945; September 7, 2021) for a detailed description of previous Federal actions concerning this species.

**Summary of Changes From the Proposed Rule**

The following are specific changes that we make in this final rule to designate critical habitat for the Miami tiger beetle based on public comments on, and information made available since the development and publication of, our September 7, 2021, proposed rule (86 FR 49945):

(1) We correct the name of Unit 3 from Deering Estate South Edition to Deering Estate South Addition.

(2) We change the name of Unit 13 from Camp Matecumbe to Boystown Pineland Preserve.

(3) We adjust the boundaries of Unit 14 at the Coral Reef Commons property to avoid small areas (less than 0.5 acre) of development and align with the habitat conservation plan (HCP) on-site preserve and mitigation area.

(4) We are excluding the Coral Reef Commons HCP on-site preserve and off-site mitigation area in Unit 14 from this final designation pursuant to section 4(b)(2) of the Act (16 U.S.C. 1531 *et seq.*) based on the provisions of the HCP. This amounts to a decrease of approximately 109.3 acres (ac) (44.2 hectares (ha)) from the critical habitat areas we proposed. In addition, we obtained new property boundary information from Miami-Dade County (Miami-Dade County open data hub; accessed February 4, 2022) and information from the public comments to help refine the specific boundaries of critical habitat around the on-site preserves. Because of this exclusion, in this rule, we present revised index and Unit 14 maps, and in our supporting documents at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053, we provide updated coordinates or plot points from which those maps were generated.

(5) We specify that "managed lawns" are not included in this critical habitat designation.

(6) In the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h), we revise the information in the "Where listed" column for the Miami tiger beetle to read, "Wherever found." This corrects the entry in the List to accurately reflect that this species' listing is not a population-based listing but a listing of the species in its entirety. This correction does not change the description, distribution, or endangered status of the Miami tiger beetle.

(7) We also made several nonsubstantive, editorial corrections for clarity and increased readability.

**Summary of Comments and Recommendations**

In the proposed rule published on September 7, 2021 (86 FR 49945), we requested that all interested parties submit written comments on the proposal by November 8, 2021. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. A newspaper notice inviting the general public to comment on our proposal was published in the Miami Herald on September 13, 2021.

During the public comment period, we received a request for a public hearing on the proposal, and on November 8, 2021, we published in the **Federal Register** a document (86 FR 61745) extending the public comment period on the proposal to December 23, 2021, and announcing a December 2, 2021, public hearing on the proposal. A subsequent notice was published in the Miami Herald on November 9, 2021, announcing the extension of the public comment period on the proposal and the public hearing, and inviting public comment. As announced, we held the public hearing on December 2, 2021.

We received a total of more than 850 public comments on our proposal, inclusive of the public hearing testimony, including two peer reviewer, three State, and two Miami-Dade County comments; a supportive post card campaign (more than 800 comments); and other members of the public (through written comments or public hearing testimony from individuals). We did not receive any comments from Federal agencies or Tribal entities. All substantive information we received during the full comment period on the proposal has either been incorporated directly into this final rule or is addressed below.

#### *Peer Reviewer Comments*

We solicited comments from four peer reviewers on our proposal to designate critical habitat for the Miami tiger beetle and subsequently received responses from two of the peer reviewers. We reviewed the responses from the peer reviewers for substantive information and comments directly related to the species and our proposal. The two respondents generally found our proposal was well-supported. Peer reviewer comments are addressed in the following summary and were incorporated into this final rule, as appropriate.

*(1) Comment:* One peer reviewer noted that management of habitat to maintain it as open and suitable for the Miami tiger beetle is a very critical concern; the reviewer added that management of habitat at the two sites currently occupied by the species has been insufficient, resulting in low population sizes, and thus can be a serious threat to the survival of the species. The reviewer and others suggested that prescribed fire at frequent intervals may be the best management method but acknowledged that manual removal of leaf litter and vegetation may also be a suitable method.

*Our Response:* Appropriate habitat management using different disturbance regimes (*i.e.*, methods), as appropriate,

to maintain a mosaic of suitable sandy and disturbed habitat is essential for the Miami tiger beetle's survival and conservation. Controlled burning is the preferred method of maintaining the habitat, but this technique is not always available or the most prudent for specific parcels. That is why we also acknowledge the importance of other methods of maintaining habitat in appropriate disturbance mosaics, such as manual clearing and removal of leaf litter and encroaching vegetation. To highlight the importance of maintaining the appropriate disturbance regime of pine rockland habitat for the Miami tiger beetle, both in the September 7, 2021, proposed rule and in this final rule, we include maintenance by natural or prescribed fire or other disturbance regimes in one of the physical or biological features essential to the beetle's conservation (see Physical or Biological Features Essential to the Conservation of the Species, below).

*(2) Comment:* One peer reviewer, in addition to the Florida Natural Areas Inventory (FNAI; a State agency) and others, commented that additional parcels that are currently unoccupied by the Miami tiger beetle have appropriate pine rockland habitat for the species and should be included in the critical habitat designation. In particular, the reviewer and others focused on the inclusion of Ludlam Pineland Preserve and the adjacent Florida Power and Light (FPL) lands.

*Our Response:* We may designate critical habitat that is outside the geographical area occupied by the species if we determine it to be essential for the conservation of the species. Accordingly, during the development of our September 7, 2021, proposed rule, we evaluated numerous parcels outside the species' current range containing pine rockland habitat to determine if they may meet the criteria we established for inclusion in critical habitat, which includes size of parcel, quality of existing pine rockland habitat, appropriate soils, and existing or potential for long-term habitat management either through prescribed fire or manual methods. Many of the parcels of remnant pine rocklands within the historical range of the Miami tiger beetle in south Florida initially considered for inclusion in the proposed critical habitat designation were removed from further consideration due to a combination of factors, including poor quality of habitat (*i.e.*, extensive infestation of invasive vegetation, significantly overgrown), and lack of the appropriate soil types, and lack of existing protections and management. Many areas were too

overgrown with native and invasive vegetation and the intensive, long-term management necessary to provide quality habitat was determined to be not practicable, due to several factors including land ownership, access, and purpose or mission of the lands. Thus, we determined those areas did not meet the definition of critical habitat for the Miami tiger beetle. Consequently, the unoccupied parcels we found essential for the conservation of the Miami tiger beetle are those that we determined to have the best opportunity for supporting existing and future populations of the Miami tiger beetle and that had a high probability of having long-term management for the species and its habitat.

As indicated above, numerous commenters, including a peer reviewer and FNAI, recommended that Ludlum Pineland Preserve and the adjacent FPL lands be included in the critical habitat designation for the Miami tiger beetle. Our initial assessment of the Ludlum Pineland Preserve suggested that while it meets the size criteria, includes the appropriate soil types, and has some management potential, the site is extensively overgrown with invasive species, and the long-term management potential for the Miami tiger beetle and its specific habitat needs is uncertain. As a result, the site ultimately was not considered further. Previous field surveys (Knisley 2014, p. 42) of Ludlum Pineland Preserve indicated that the site was disturbed with a heavy pine overstory and thick understory of saw palmetto; surveyors concluded there was minimal habitat for the Miami tiger beetle. In fact, one surveyor gave it an overall grade of "D" for habitat suitability. A subsequent survey conducted in late August 2021 by representatives from FNAI (FNAI 2021, entire), the results of which were provided to us during the public comment period on our September 7, 2021, proposed rule, further confirmed that the site is extensively overgrown with vegetation, both canopy and understory, and has a deep layer of leaf litter, thus making it unsuitable for the Miami tiger beetle at this time. Even though the parcel is currently being managed for pine rockland habitat, the management is insufficient for the Miami tiger beetle and its preferred habitat. While we recognize that with extensive management, this parcel could have future habitat potential for the Miami tiger beetle, we do not consider it to meet the definition of critical habitat for the Miami tiger beetle. As a result, we find that it does not currently meet the criteria for

inclusion in a critical habitat designation for the species.

Our initial evaluation of the FPL parcel was comparable to that of the Ludlum Pineland Preserve parcel in that the existing habitat may not be of high quality, and the long-term management potential for the Miami tiger beetle is limited due to land ownership and the use or mission of the property. As such, we did not include the FPL parcel in our proposed critical habitat designation for the Miami tiger beetle. During the public comment period on our September 7, 2021, proposed rule, FNAI provided results of an August 2021 field survey of the FPL parcel. The field survey identified that the areas under the powerlines contain a dense understory of vegetation, but some adjacent areas consist of suitable open sandy substrates, suggesting potential suitable habitat for the Miami tiger beetle. Even though the parcel may contain some suitable habitat for the beetle, we have determined that the FPL parcel is not essential for the conservation of the species. While the parcel is subjected to a certain level of management and disturbance, which maintains the lands for the utility and provides some habitat for the beetle, we find that the type and level of management may not be fully consistent with the beetle's long-term needs. Further, the mission or purpose of the parcel is to be maintained for the utility, suggesting that management may be inconsistent with the conservation needs of the beetle. Consequently, we concluded that this parcel doesn't meet the definition of critical habitat for Miami tiger beetle. Therefore, we are not including the FPL parcel in this critical habitat designation for the species. However, like Ludlum Pineland Preserve and similar parcels containing disturbed pine rockland habitat, this parcel could provide habitat for the Miami tiger beetle if managed appropriately.

#### Comments From States

We received three comments from State agencies on our proposal, two from FNAI and one from the Florida Fish and Wildlife Conservation Commission (FFWCC). The comments from FNAI focused primarily on the recommendation to include Ludlum Pineland Preserve, discussed above, but to not include Gould's Pineland Preserve, discussed below. The comments from FFWCC provided a statement of support for the criteria used in the development of our proposal to identify specific areas as critical habitat for the Miami tiger beetle; provided some editorial comments;

sought clarification of proposed Unit 14, Richmond Pine Rocklands, and the treatment of the Coral Reef Commons HCP and other parcels therein; discussed habitat management for the Miami tiger beetle and provided some recommendations; and discussed captive propagation of the species.

(3) *Comment:* FNAI recommended that Gould's Pineland Preserve not be included due to current site conditions based on recent survey information. However, numerous other commenters recommended that the parcel be considered for inclusion in critical habitat. Further, commenters also recommended that additional areas be considered for inclusion in critical habitat. These include, but are not limited to, Boystown Pineland Preserve, R. Hardy Matheson Preserve, pine rockland habitat on Miami Executive Airport, Camp Choe, lands containing pine rockland habitat adjacent to the University of Miami's Center for Southeastern Tropical Advanced Remote Sensing (CSTARS) facility, and Coral Reef Park.

*Our Response:* Since Gould's Pineland Preserve is outside the geographical area occupied by the species at the time of listing, it must be essential for the conservation of the Miami tiger beetle in order to meet the Act's definition of critical habitat. As discussed above, during the development of our proposal, we evaluated numerous unoccupied parcels containing pine rockland habitat to determine if they are essential for inclusion in critical habitat; our evaluations included size of parcel, quality of existing pine rockland habitat, soil type(s), and existing protections and management either through prescribed fire or manual methods. Many of the parcels of remnant pine rocklands within the historical range of the Miami tiger beetle in south Florida initially considered for critical habitat were removed from further consideration due to a combination of factors including containing poor quality of habitat (*i.e.*, extensive infestation of invasive vegetation, significantly overgrown), lack of the appropriate soil types, and lack of existing protections and management. Many areas were too overgrown with vegetation, and the intensive, long-term management necessary to provide quality habitat was determined to be not practicable, due to several factors including land ownership and access. Thus, we determined those areas were not essential for the conservation of the Miami tiger beetle. Consequently, the unoccupied parcels we found essential to the conservation of the Miami tiger

beetle are those parcels in our proposal that we determined to have the best opportunity for supporting existing and future populations of the Miami tiger beetle.

Like Ludlum Pineland Preserve, Gould's Pineland Preserve was initially evaluated for inclusion in critical habitat for the Miami tiger beetle but was summarily rejected due to current site/habitat conditions based on field survey information. Surveys from 2015 provided information that the site contained very thick canopy and midstory of vegetation and that leaf litter/thatch on the ground was too thick, thus rendering the site unsuitable for the Miami tiger beetle. At that time one surveyor gave it an overall grade of D-F for habitat suitability. A subsequent survey conducted in late August 2021 by representatives from FNAI, the results of which were provided to us during the public comment period on our September 7, 2021, proposed rule, further confirmed that the site is extensively overgrown with vegetation, both canopy and understory, and has a deep layer of leaf litter, thus making it unsuitable for the Miami tiger beetle. The site also appears to be too rocky with little mixed sand areas, so even with extensive management, the site may not support the beetle. While we recognize that with extensive long-term management of this parcel, it could provide limited habitat for the Miami tiger beetle, we currently do not consider it to be essential for the conservation of the beetle. As a result, we do not find that Gould's Pineland Preserve meets the Act's definition of critical habitat for the Miami tiger beetle.

Likewise, Boystown Pineland Preserve, R. Hardy Matheson Preserve, pine rockland habitat on Miami Executive Airport, Camp Choe, and Coral Reef Park each were initially considered for inclusion in critical habitat. Boystown Pineland Preserve was included in our September 7, 2021, proposed rule but incorrectly identified as Camp Matecumbe (proposed Unit 13). In this final rule, the name of the unit has been corrected to Boystown Pineland Preserve. As for the other areas:

(1) R. Hardy Matheson Preserve is considered rockland hammock, not pine rockland, and has the wrong soil type for the Miami tiger beetle; therefore, it is not considered to be essential for the species.

(2) Pine rockland habitat on Miami Executive Airport consists of private land that is currently being managed for airport use, which is not consistent with the needs of the Miami tiger beetle.

Therefore, the parcel is not considered essential habitat for the beetle.

(3) Camp Choe is a privately owned Girl Scout camp whose mission does not include protection and management for the beetle or its habitat, and therefore it is not considered essential habitat.

(4) We did determine that the pine rocklands adjacent to the University of Miami CSTARS facility is essential to the conservation of the Miami tiger beetle. This land is associated with the mitigation area for the Coral Reef Common HCP and is being conserved and managed for the beetle and its essential habitat features. As discussed below, this mitigation area is being excluded from this final critical habitat designation pursuant to section 4(b)(2) of the Act based on the conservation provisions of the HCP (see Consideration of Impacts under Section 4(b)(2) of the Act, below).

(5) Coral Reef Park is an urban park with some marginal rocky habitat with some sand along the periphery, and as such we do not find it to be essential habitat for the beetle.

Consequently, these areas are not included in this final designation of critical habitat for the Miami tiger beetle as we have concluded they do not meet the definition of critical habitat or are being excluded pursuant to section 4(b)(2) of the Act. As previously discussed above, additional parcels not specifically named in this rule were evaluated during the development of the proposal and for this final rule, but we did not find them essential for the conservation of the species because they do not meet the habitat requirements for the Miami tiger beetle, such as presence of one or more of the essential physical or biological features.

(4) *Comment:* FFWCC and other commenters recommended that the pine rockland habitat within the Coral Reef Commons HCP preserve and mitigation area parcels be included in the final critical habitat designation to emphasize their significance to the management of, and their connectivity to, the Richmond Pine Rocklands (Unit 14).

*Our Response:* We agree with FFWCC's assessment that the habitat within the Coral Reef Commons HCP preserve and mitigation areas is central to the long-term conservation of the Miami tiger beetle and that the proper management and conservation of the habitat within these two parcels is paramount. However, consistent with our section 4(b)(2) policy (81 FR 7226; February 11, 2016), if a signed conservation plan or program provides for the necessary long-term conservation and management of habitat for a species

for which critical habitat is being considered, then we may choose to conduct an analysis pursuant to section 4(b)(2) of the Act to determine if the benefits of excluding the specific area under consideration outweigh the benefits of including the area in critical habitat. We have determined through our analysis that the provisions set forth in the Coral Reef Commons HCP, as implemented, will provide for the appropriate long-term management and conservation of this habitat such that the benefits of its inclusion are significantly reduced. Accordingly, we determined that the benefits of excluding these specific parcels from this critical habitat designation outweigh the benefit of their inclusion in the designation. (See Consideration of Impacts under Section 4(b)(2) of the Act, below, for more information.) As a result, the preserve and mitigation areas associated with the Coral Reef Commons HCP have been excluded from this final critical habitat designation pursuant to section 4(b)(2) of the Act.

(5) *Comment:* FFWCC recommended that we clarify the specific parcels and landownership within Unit 14 (Richmond Pine Rocklands), conduct surveys on parcels in which the occupancy by the Miami tiger beetle has not been verified, and manage the habitat on each parcel to benefit the species.

*Our Response:* In developing our September 7, 2021, proposed rule, we used the best information and mapping data available from the county and other sources to determine landownership within this unit. We recognize that, for some parcels, landownership was vague or boundaries imprecise, but this was the best data available to us at that time. We have obtained more recent 2022 parcel or landownership information from Miami-Dade County for use in the development of this final rule; however, these parcel data did not provide any further clarification on property ownership within Unit 14.

We also agree with FFWCC that further surveys should be conducted throughout Unit 14 to verify and document the extent of occupancy by the Miami tiger beetle and identify those areas where habitat restoration or management may be a priority. However, since some of the land, such as the University of Miami CSTARS and Coral Reef Commons, is private, we do not have access to the parcels to directly conduct such field surveys and are thus reliant on the property owners for either granting access for conducting field surveys or providing specific information concerning habitat quality

and potential for occupancy by the beetle. Other parcels are federally owned, but have limited access due to security constraints, such as the Federal prison and U.S. Coast Guard areas. Further, known occurrences of Miami tiger beetle in this unit suggest beetles are capable of moving throughout this unit such that all the areas within the unit meet the definition of the "geographical area occupied by the species," which is defined in title 50 of the Code of Federal Regulations (CFR) at 424.02 (50 CFR 424.02) as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). As the regulations provide, the occupied areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis, including migratory corridors. Accordingly, although we agree that additional surveys would be helpful to identify the extent of occupancy, we clarify that we consider the entire unit to be within the geographical area occupied by the species.

#### *Public Comments*

(6) *Comment:* A commenter indicated that the boundaries of proposed critical habitat were not accurately aligned with the boundaries of the Coral Reef Commons HCP preserve and mitigation areas and requested that we ensure that the boundaries are aligned in the final rule.

*Our Response:* It was our intent that the boundaries of the proposed critical habitat for the Miami tiger beetle avoid the developed areas in the Coral Reef Commons property and align with those of the preserve and mitigation areas established in the Coral Reef Commons HCP. However, given the scale of the maps for publication in the **Federal Register**, it may appear in this document that the boundaries are not aligned. We have verified their alignment in this final rule. The coordinates or plot points or both from which the maps are generated are included in the decision file and are available at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053, at <https://www.fws.gov/office/florida-ecological-services/library>, and at the Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

(7) *Comment:* Several commenters expressed concern about the long-term viability of pine rockland habitat and conservation potential for the Miami tiger beetle given the impacts of climate change (*i.e.*, more frequent and severe storm and hurricane events, sea level rise, and saltwater intrusion).

*Our Response:* Such factors as increased extreme weather events and hurricanes, sea level rise, and saltwater intrusion, along with other possible effects of climate change, do raise serious concerns not only for the Miami tiger beetle but for many of the endangered, threatened, and at-risk species in south Florida. These factors were considered in the development of our September 7, 2021, proposed rule. Many of the critical habitat units are at elevations above projected sea level rise; however, there could be impacts due to salinization of the water table and shifts in vegetation. Specifically, numerous parcels of pine rockland habitat were identified that either have good quality habitat for the beetle or have a high potential for restoration and management so that, ultimately, through the process of translocation and introduction, additional populations of the beetle can be established. With currently only two known extant populations of the Miami tiger beetle, it is our expectation that multiple populations distributed across the species' historical range will help protect the long-term survivability of the species from stochastic events and impacts from these climate-related factors.

*(8) Comment:* Several commenters suggested that the proposed critical habitat within Unit 14 (Richmond Pine Rocklands) includes roadways, pathways, pavement, buildings, and other structures that lack the physical or biological features essential to the conservation of the Miami tiger beetle.

*Our Response:* As explained in our September 7, 2021, proposed rule and this final rule, critical habitat does not include human-made structures (such as buildings, aqueducts, runways, roads, and other paved areas) or the land on which they are located, so these features within designated units are not considered critical habitat. In developing and delineating critical habitat for the Miami tiger beetle, we used the most current mapping and survey information available to us to focus on identifying the specific areas that contain the essential physical or biological features for the species and made every attempt to not include developed areas such as roads, pavement, buildings, and other such areas. In developing this final rule, we obtained new property boundary information from Miami-Dade County (Miami-Dade County open data hub; accessed February 4, 2022) and information from public comments on our September 7, 2021, proposed rule to help refine the specific boundaries of critical habitat. As indicated in our

proposal and reiterated in this rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for the Miami tiger beetle. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands.

To help clarify and facilitate implementation, specifically for Unit 14 of this final rule, this critical habitat designation does not include maintained asphalt roads and paths or buildings and structures associated with the Gold Coast Railroad Museum, Military Museum, and Zoo Miami, or managed fields comprised of dense lawn grass used for Zoo Miami operations. Further, any such lands inadvertently left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification, unless the specific action will affect the physical or biological features essential to the Miami tiger beetle in the adjacent critical habitat. In contrast, this critical habitat designation for the Miami tiger beetle includes areas that contain degraded asphalt, gravel, dirt roads, dirt paths, or dirt firebreaks, and vegetated areas not containing dense, frequently maintained lawn grass used for Zoo Miami operations.

*(9) Comment:* One commenter indicated that the boundaries we identified in the Unit 14 (Richmond Pine Rocklands) of our proposed critical habitat for the Miami tiger beetle overlap with small portions (a total of 0.3 acres (1.21 hectares)) of land identified as areas to be developed (*i.e.*, not preserve or mitigation area) as part of the Coral Reef Commons HCP. The commenter requested that we align the boundaries of critical habitat with those for the HCP to remove the areas to be developed. The commenter further provided a map showing the areas of overlap to facilitate their removal from the critical habitat unit's boundaries.

*Our Response:* We appreciate the information and map provided by the commenter. In this final rule, we align the boundaries of critical habitat within Unit 14 (Richmond Pine Rocklands) to remove those areas identified in the Coral Reef Commons HCP as areas to be developed.

*(10) Comment:* A commenter on behalf of the Miami Wilds proposed development stated that the Miami Wilds development footprint for the project only includes paved surfaces and undeveloped areas of densely overgrown, invasive vegetation, and that portions of the development footprint are included within the boundaries of the proposed critical habitat designation for the Miami tiger beetle. The commenter further indicated that they compared the boundaries of the proposed critical habitat designation with information they have from field surveys conducted within the development footprint and the results of that comparison suggest that the proposed critical habitat designation includes areas that do not contain habitat for the beetle and are not known to be occupied by the beetle. The commenter recommended that only areas known to contain the essential habitat for the Miami tiger beetle in Unit 14 should be included in the final critical habitat designation and the "non-habitat" areas should be removed. The commenter further suggested that the entirety of Unit 14 (Richmond Pine Rocklands) is not occupied by the Miami tiger beetle as the September 7, 2021, proposed rule indicates. The commenter cites information from surveys conducted in portions of Unit 14 in 2020 and 2021 following the 2015 Survey Guidelines for the Miami Tiger Beetle that were negative for the beetle. The commenter recommended that only areas known to be occupied by the Miami tiger beetle in Unit 14 be identified as occupied and those areas not known to be occupied, or where there is negative survey information, be labeled as unoccupied.

*Our Response:* In our September 7, 2021, proposed rule, we identified Unit 14 (Richmond Pine Rocklands) as occupied by the Miami tiger beetle based on the known, documented presence of the beetle at several locations throughout the unit and the unit contains one or more of the physical and biological features. As discussed above in our response to *(5) Comment*, the "geographical area occupied by the species" is defined at 50 CFR 424.02 as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals). While the entirety of Unit 14 may not be



occupied at all times, the known occurrences of the Miami tiger beetle in this unit suggest they are capable of moving throughout this area given the suitable habitat and lack of barriers to dispersal such that the area comprising Unit 14 meets the definition of the “geographical area occupied by the species” for the Miami tiger beetle. It is also likely that there may be additional populations in the unsurveyed and undersurveyed areas of this unit due to the suitable habitat present within the unit. For example, in the summer of 2021, surveyors discovered Miami tiger beetles in a new area of the Miami Zoo property, over 0.6 miles (1 kilometer) from the closest known areas. However, given the concerns related to the extent of occupancy within Unit 14, we also considered whether these areas would meet the standard for critical habitat if we assumed the areas were not occupied. We find they would. The Miami tiger beetle currently requires additional populations if it is to recover to the point that it could be removed from the Federal List of Endangered and Threatened Wildlife. Due to the limited remaining suitable habitat for this species and the proximity of these areas to documented occurrences, the continuity of habitat, and presence of the physical or biological features essential to the Miami tiger beetle, these areas are essential for the conservation of the Miami tiger beetle. Further, given the scale of mapping for this critical habitat designation, it is difficult to extract small areas of non-habitat. Please refer to our response to (8) *Comment*, above for clarification on the treatment of certain areas within critical habitat.

(11) *Comment*: One commenter suggested that the draft economic analysis for the proposed critical habitat designation for the Miami tiger beetle is flawed, specifically with regards to Unit 14 (Richmond Pine Rocklands). The commenter asserted the flaws result from the analysis relying on: (1) Overestimating the extent of current occupation by the beetle in Unit 14, thereby overestimating the extent of existing baseline protection due to listing of the species; (2) overestimating the extent of overlap with other listed species and their designated critical habitats in Unit 14, thereby overestimating the extent of existing baseline protection due to the presence of other listed species; (3) overstating the presence of essential habitat features for the beetle on numerous roadways, pathways, pavement, buildings, and other structures in Unit 14, and therefore overstating the presence of other baseline protections in the unit;

and (4) limiting evaluation of potential perception-related impacts to privately owned lands and lack of consideration for incremental costs for private development on county-owned leased lands.

*Our Response*: As discussed in our response to (10) *Comment*, above, we identified Unit 14 as occupied by the Miami tiger beetle based on the documented presence of the beetle at several locations throughout the unit and the likelihood of the species’ ability to disperse within this unit. Based on our knowledge of this species, we believe that at any given time, suitable habitat in the unit can be occupied either temporarily or permanently by the species. Further, given the contiguous habitat with few barriers to dispersal, frequent adult movement among individuals is likely, and the occupied Richmond parcels likely represent a single population (Knisley 2015a, p. 10). Thus, we consider the entirety of Unit 14 to be within the geographical area occupied by the species, and we have treated the entire unit as being occupied for the designation of critical habitat, with the exception of those areas discussed in response to (8) *Comment* that would not be considered critical habitat.

We recognize, however, that the species may not be present in all areas of this unit at all times. Accordingly, the economic effects of a consultation resulting from this critical habitat designation could be considered incremental if there is a future action with a Federal nexus in an area where the species is not present and there would be no effects to the species itself from the proposed action. That said, since we have determined that these areas contain at least one of the physical or biological features essential to the Miami tiger beetle, future proposed projects are likely to affect the species itself by affecting the features it depends on. Thus, the outcome of the consultation would likely be the same as it would be if the species were to be present at the time of consultation. We would recommend protective measures be established for the Miami tiger beetle regardless of critical habitat designation in this unit because of potential impacts to the features the species depends on. Given this, we agree with the draft economic analysis that the incremental costs resulting from the designation of critical habitat would be expected to be minimal above those in place due to the presence of the listed species.

However, even if we assumed no occupancy of Miami tiger beetles for the purposes of considering the economic impacts, the commentor did not provide

us with specific information about any costs that may be incurred. Further, these areas, as the last remaining pine rocklands directly adjacent and within dispersal proximity to the occurrence of one of only two populations of the beetle, are vitally essential to the conservation of this species and are likely to be critical habitat regardless of potential economic impacts.

It is also well-documented that numerous other federally listed species occupy habitat in Unit 14 (Richmond Pine Rocklands). Some of these species are narrowly restricted in their mobility and in their specific habitat needs, while other are more mobile and can utilize pine rockland habitat of various quality. Further, critical habitat has been designated for a number of these species, as the commenter notes. Although these existing critical habitat designations have defined boundaries, many of the other listed species currently without critical habitat designations can occupy habitat throughout the unit at any given time. Thus, the presence of other listed species and critical habitat designations for other species are likely to result in protective measures in this unit even absent designated critical habitat for the Miami tiger beetle.

The commenter further asserted that developed areas within the unit (*e.g.*, roadways, pathways, pavement, buildings, and other structures) do not contain pine rockland habitat and are not subject to baseline protections, such as Miami-Dade County’s Natural Forest Communities designation. These areas are addressed above in our response to (8) *Comment*.

Lastly, the commenter asserts that our draft economic analysis did not take into consideration the incremental costs to a developer for private development on county-owned leased lands. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the Federal agency is not likely to destroy or adversely modify critical habitat. A private development project on county-owned leased lands would only have a regulatory, and therefore incremental, effect if there is a Federal nexus (*e.g.*, Federal funding, Federal permit, Federal land transfer, etc.) for the project, or if the designation of critical habitat triggers regulatory compliance under State or local laws, or if there are perception effects associated with regulatory uncertainty. As the commenter notes, the draft economic analysis specifically discusses

perception-related impacts as related to privately owned lands. We revised the draft economic analysis to acknowledge that perception-related effects are also possible on county-owned lands leased to private developers. However, any such costs are speculative, and the economic analysis was unable to quantify them. The commenter also did not provide any cost-specific information on the perceptions or incremental impacts to private development of county-owned lands. Regardless, because of the presence of the Miami tiger beetle and other listed species and existing designated critical habitats in the vicinity of these lands, incremental impacts, including perception-related impacts, on these leased lands appears unlikely.

(12) *Comment*: As a consequence of the issues raised in (10) *Comment* and (11) *Comment*, above, one commenter stated that the benefits of excluding specific “non-habitat” areas from Unit 14 outweigh the potential conservation benefits to the Miami tiger beetle. The commenter requested that we exclude those specific “non-habitat” areas from the final designation of critical habitat for the Miami tiger beetle.

*Our Response*: In our responses to (10) *Comment* and (11) *Comment*, above, as well as other comments, we discuss the occupancy by the Miami tiger beetle within Unit 14 (Richmond Pine Rocklands) and the suitability of habitat within that unit. We acknowledge that the unit contains a mosaic of good quality habitat and lesser quality habitat, and that certain “non-habitat” areas of human-made structures (such as buildings, aqueducts, runways, roads, other paved areas, and managed lawns) or the land on which they are located appear to be included in this critical habitat designation due to the scale of mapping. However, as we explain in our response to (8) *Comment*, those areas are not included in critical habitat through the text of this rule (see Regulation Promulgation, below).

We also recognize that excluding the other specific areas identified by the commenter may relieve some potential perceived regulatory and cost (financial, time, resource) burdens. However, additional information on why these specific areas should be excluded under section 4(b)(2) of the Act has not been provided to us and therefore we were unable to conduct an analysis to balance or weigh the benefits of excluding the area against the benefits of including that area in the designation. These areas provide dispersal corridors for the Richmond population of the Miami tiger beetle, provide potential habitat for population expansion, and support prey

populations. The Secretary may exclude an area from critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (2016 Policy; 81 FR 7226, February 11, 2016), both of which we published jointly with the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration. Following this guidance, as noted in our response to (11) *Comment*, incremental economic impacts appear to be unlikely. Furthermore, critical habitat does not appear to impact national security in these areas. Finally, we have no evidence that the specific areas requested by the commenter to be excluded from this designation are under an existing conservation agreement, habitat conservation plan, safe harbor agreement, or other instrument, or that there is a proven track record of conservation by the requester that indicates the lands would continue to provide an important contribution to the conservation and recovery of the Miami tiger beetle. As such, we are not excluding these lands from this critical habitat designation.

#### Background

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, we designate a species’ critical habitat concurrently with listing the species. Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species’ occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species’ life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats,

and habitats used periodically, but not solely by vagrant individuals).

Our September 7, 2021, proposed rule to designate critical habitat for the Miami tiger beetle (86 FR 49945) published when the regulations defining “habitat” (see 85 FR 81411; December 16, 2020) and governing the 4(b)(2) exclusion process for the Service (see 85 FR 82376; December 18, 2020) were in place and in effect. However, those two regulations have since been rescinded (see 87 FR 37757, June 24, 2022; 87 FR 43433, July 21, 2022) and no longer apply to any designations of critical habitat. Therefore, for this final rule designating critical habitat for the Miami tiger beetle, we apply the regulations at 50 CFR 424.19 and the 2016 Policy (81 FR 7226; February 11, 2016).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would likely result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not

required to abandon the proposed activity, or to restore or recover the species; instead, they must implement “reasonable and prudent alternatives” to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act’s definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). Under the second prong of the Act’s definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished

materials; or experts’ opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

#### **Physical or Biological Features Essential to the Conservation of the Species**

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define “physical or biological features essential to the conservation of the species” as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single

habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

#### *Space for Individual and Population Growth and for Normal Behavior*

The Miami tiger beetle is endemic to pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge in Miami-Dade County in South Florida. Descriptions of this habitat and its associated native plant species are provided in the *Habitat* discussion in the proposed listing rule (80 FR 79533, December 22, 2015, pp. 79537–79538). Additional discussion may be found in the final listing rule (81 FR 68985; October 5, 2016). The Miami tiger beetle requires open or sparsely vegetated sandy areas within pine rockland habitat for thermoregulation (regulation of body temperature), foraging, reproduction, and larval development.

As a group, tiger beetles (Coleoptera: Cicindelidae) occupy ephemeral

habitats where local extinction from habitat loss or degradation is common, so dispersal to establish new populations in distant habitat patches is a likely life-history strategy for most species (Knisley 2015b, p. 10). Therefore, individuals of the species must be sufficiently abundant and occur within an appropriate dispersal distance to adjacent suitable habitat so they can repopulate areas following local extirpations. Barriers to dispersal can disrupt otherwise normal metapopulation dynamics and contribute to imperilment.

Development and agriculture have reduced pine rockland habitat by 90 percent in mainland south Florida. Pine rockland habitat decreased from approximately 183,000 acres (ac) (74,000 hectares (ha)) in the early 1900s to only 3,707 ac (1,500 ha) in 2014 (Possley et al. 2014, p. 154). The largest remaining intact pine rockland (approximately 5,716 ac (2,313 ha)) is Long Pine Key in Everglades National Park (Everglades). Outside of the Everglades, less than 2 percent of pine rocklands on the Miami Rock Ridge remain, and much of what is left are small remnants scattered throughout the Miami metropolitan area that are isolated from other natural areas (Herndon 1998, p. 1; URS Corporation Southern 2007, p. 1).

The extreme rarity of high-quality pine rockland habitats supporting the Miami tiger beetle elevates the importance of remnant sites that still retain some pine rockland species. We consider pine rockland habitat to be the primary habitat for the Miami tiger beetle.

We do not have specific information regarding a minimum viable population size for the Miami tiger beetle or the amount of habitat needed to sustain a viable population. Recovery plans for *Cicindela puritana* (Puritan tiger beetle) and *C. dorsalis* (Northeastern beach tiger beetle) consider a minimum viable population size to be at least 500–1,000 adults (Hill and Knisley 1993, p. 23; Hill and Knisley 1994, p. 31). A minimum viable population size of 500 adults was estimated for the Salt Creek tiger beetle (*Cicindela nevadica lincolniana*) (79 FR 26014; May 6, 2014). The best available data regarding the minimum area and number of individuals necessary for a viable population for the Miami tiger beetle come from information regarding the closely related Highlands tiger beetle (*Cicindelidia highlandensis*); the information describes estimates of a minimum of 100 adult Highlands tiger beetles in an area of at least 2.5 to 5.0 ac (1.0 to 2.0 ha) (Knisley and Hill 2013, p. 42). This estimate is based on

observations of population stability for the Highlands tiger beetle, as well as survey data and literature from other tiger beetle species (Knisley and Hill 2013, p. 42).

The Miami tiger beetle requires open or sparsely vegetated sandy areas within pine rockland habitat to meet its life-history requirements, as well as adjacent undeveloped habitat to facilitate dispersal and protect core habitat. Therefore, based on the information in the previous paragraph, we identify pine rockland habitats of at least 2.5 ac (1.0 ha) in size as a necessary physical feature for this species.

#### *Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements*

**Food**—Miami tiger beetles are active diurnal predators that use their keen vision to detect movement of small arthropods and run quickly to capture prey with their well-developed jaws (mandibles). Although we do not have specific information on Miami tiger beetle diets, observations by various entomologists indicate small arthropods, especially ants, are the most common prey for tiger beetles. Over 30 kinds of insects from many families have been identified as prey for tiger beetles, and scavenging is also common in some species (Knisley and Schultz 1997, pp. 39, 103; Willis 1967, pp. 196–197). Ants were the most common prey of tiger beetles in Florida (Choate 1996, p. 2). Miami tiger beetle larvae are sedentary sit-and-wait predators that capture small prey passing over or near (within a few inches (in) (centimeters (cm) of) their burrows on the soil surface. Larvae prey on small arthropods, similar to adults. Alterations or reductions in the prey base through pesticide exposure could affect foraging of Miami tiger beetles.

**Water**—The Miami tiger beetle requires inland sandy pine rockland habitat that has moderately drained to well-drained terrain. Rainfall varies from an annual average of over 64 in (163 cm) in the northwest portion of Miami-Dade County to between 48 and 56 in (122 and 143 cm), respectively, in the rest of the county (Service 1999, p. 3–167). The water table in the Miami Rock Ridge outside of the Everglades seldom reaches the surface (Service 1999, p. 3–167). The existence of larvae in shallow permanent burrows throughout their development makes them susceptible to changes in groundwater levels. The effects of climate change and sea level rise, which predict higher intensity storms, more erratic rainfall (*i.e.*, alterations to the amount and seasonality and rainfall),

and especially changes in water levels due to storm surge and salinization of the water table, could result in vegetation shifts that may impact the species. Based on this, we identify water (particularly appropriate hydrological regimes) as a necessary feature for the Miami tiger beetle to carry out its life processes.

**Light**—Miami tiger beetles require open areas of pine rockland habitat with ample sunlight for behavioral thermoregulation so that they can successfully perform their normal activities, such as foraging, mating, and oviposition. Vegetation encroachment and lack of adequate pine rockland management threatens the amount of light necessary for the Miami tiger beetle. We identify light as a necessary feature for the Miami tiger beetle to carry out its life processes.

**Soil**—The Miami tiger beetle is endemic to pine rockland habitat within the Miami Rock Ridge. The Miami Rock Ridge has oolitic limestone (composed of spherical grains packed tightly) at or very near the surface and solution holes occasionally from where the surface limestone is dissolved by organic acids. There is typically very little soil development, consisting primarily of accumulations of low-nutrient sand, marl, clayey loam, and organic debris found in solution holes, depressions, and crevices on the limestone surface (FNAI 2010, p. 62). However, sandy pockets can be found at the northern end of the Miami Rock Ridge (Northern Biscayne Pinelands), beginning from approximately North Miami Beach and extending south to approximately SW 216th Street (Service 1999, p. 3–162).

These sandy substrates provide the appropriate nutrients, moisture regime, and soil chemistry necessary for Miami tiger beetle reproduction. Burrows in the sand are used for eggs and developing larvae. In addition, these sandy areas support a community of insect prey that allows the species to persist. Soil compaction could impact the species and its habitat. Therefore, we identify substrates derived from calcareous limestone that provide habitat for the Miami tiger beetle to carry out its life processes to be a necessary feature for the Miami tiger beetle.

**Summary**—Based on the best available information, we conclude that the Miami tiger beetle requires open sandy areas in pine rockland habitat with little to no vegetation for thermoregulation, foraging, egg-laying, and larval development. We identify these characteristics as necessary physical or biological features for the species.

### *Cover or Shelter*

The life cycle of the Miami tiger beetle occurs entirely within pine rocklands. Females place a single egg into a shallow burrow dug into the soil. The egg hatches, apparently after sufficient soil moisture, and the first instar larva digs a burrow at the site of oviposition (egg-laying). Larvae are closely associated with their burrows, which provide cover and shelter for anywhere from 2 months to 1 year or more, depending on climate, food availability, and the number of cohorts per year (Knisley 2015a, p. 28). Larvae remain in their burrows until they are adults, only extending beyond the burrow entrance to subdue arthropod prey. The adult flight period for the Miami tiger beetle lasts approximately 5 months (mid-May to mid-October) (Knisley 2015a, p. 27). Both larvae and adults are visual predators and require open habitat to locate prey. Open areas with dense vegetation no longer provide suitable habitat. However, vegetation adjacent to open sandy areas may also be important, as it may provide thermal refugia for the beetles to escape from high ground temperatures (Knisley 2014, p. 1). Miami tiger beetle habitat can also be impacted from trampling, which causes soil compaction and can lead to lethal impacts to adults or larvae or impacts to their habitat.

Based on the best available information, we conclude that the Miami tiger beetle requires pine rocklands, specifically those containing open or sparsely vegetated sandy patches.

### *Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring*

Miami tiger beetle reproduction and larval development occurs entirely within pine rocklands. Both larvae and adults occupy the same habitats, open sandy patches interspersed with vegetation. Vegetation encroachment into the open sandy habitat patches, barriers to dispersal, trampling of the surface soil, reductions in prey base, and collection of beetles are factors that may reduce the reproductive potential of the species. Therefore, based on the information above, we identify pine rockland habitats that can support the species' growth, distribution, and population expansion as required for this species.

### *Habitats Representative of the Historical, Geographical, and Ecological Distributions of the Species*

The Miami tiger beetle continues to occur in pine rockland habitats that are protected from incompatible human-

use, but these areas are only partially representative of the species' historical, geographical, and ecological distribution because its range within these habitats has been reduced. The species is still found in pine rockland habitats, with open sandy areas of at least 2.5 to 5.0 ac (1.0 to 2.0 ha) in size. Representative pine rocklands are located on Federal, local, and private conservation lands that implement conservation measures benefitting the beetle.

Pine rockland habitat is dependent on some degree of disturbance, most importantly from natural or prescribed fires (Loope and Dunevitz 1981, p. 5; Snyder et al. 2005, p. 1; Bradley and Saha 2009, p. 4; Saha et al. 2011, pp. 169–184; FNAI 2010, p. 62). These fires are a vital component in maintaining native vegetation and creating or maintaining open or sparsely vegetated sandy areas, within this ecosystem. Fires have historically burned in intervals of approximately 3 to 7 years (FNAI 2010, p. 3) and were typically started by lightning strikes during the frequent summer thunderstorms (FNAI 2010, p. 3). Without fire, successional climax from tropical pineland to rockland hammock is rapid, and the open areas required by the species are encroached with vegetation and leaf litter. In addition, displacement of native species by invasive, nonnative plants often occurs.

Mechanical control or thinning of pine rockland vegetation may be another means of maintaining pine rockland habitat, but it cannot entirely replace fire because it does not have the same benefits related to removal of leaf litter and nutrient cycling. In addition, mechanical control or thinning may lead to trampling of adult or larval tiger beetles. Natural and prescribed fire remains the primary and ecologically preferred method for maintaining pine rockland habitat.

Hurricanes and other significant weather events can contribute to openings in the pine rockland habitat (FNAI 2010, p. 62) needed by the Miami tiger beetle; however, they can also be a source of significant and direct risk to the species. Given the few, isolated populations of the Miami tiger beetle within a location prone to storm influences (located approximately 5 miles (8 kilometers) from the coast), the species is at substantial risk from stochastic environmental events such as hurricanes, storm surges, and other extreme weather that can affect recruitment, population growth, and other population parameters. The substantial reduction in the historical range of the beetle in the past 80 years,

and the few remaining populations, make the species less resilient to impacts than when its distribution was more widespread.

Therefore, based on the information above, we identify pine rockland management through natural or prescribed fire, or other disturbance regimes that maintain pine rockland habitat, such as weather events, to be necessary for this species.

### *Summary of Essential Physical or Biological Features*

We derive the specific physical or biological features essential to the conservation of the Miami tiger beetle from studies of the species' habitat, ecology, and life history. We have determined that the following physical or biological features are essential to the conservation of the Miami tiger beetle:

1. South Florida pine rockland habitat of at least 2.5 ac (1 ha) in size that is maintained by natural or prescribed fire or other disturbance regimes; and

2. Open sandy areas within or directly adjacent to the south Florida pine rockland habitat with little to no vegetation that allows for or facilitates normal behavior and growth such as thermoregulation, foraging, egg-laying, larval development, and habitat connectivity, which promotes the overall distribution and expansion of the species.

### **Special Management Considerations or Protection**

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of this species may require special management considerations or protection to reduce the following threats: vegetation encroachment of pine rockland habitat; loss of pine rockland habitat due to development that further fragments or degrades the few remaining pine rockland parcels in Miami-Dade County; climate change and sea level rise; and pesticide exposure. These threats are exacerbated by having only two small populations in a restricted geographic range, making this species particularly susceptible to extinction. For a detailed discussion of threats, see Summary of Factors Affecting the Species in our proposed listing rule (80 FR 79533, December 22, 2015, pp. 79540–79551). Additional information may be found in the final listing rule (81 FR 68985; October 5, 2016).

Some of these threats can be addressed by special management considerations or protection while others (e.g., sea level rise, hurricanes, storm surge) are beyond the control of landowners and land managers. However, even when landowners or land managers may not be able to control all the threats directly, they may be able to address the impacts of those threats.

Destruction of rock pinelands for economic development has reduced pine rockland habitat on the Miami Rock Ridge outside of the Everglades by over 98 percent, and remaining habitat in this area is highly fragmented. The Miami tiger beetle occurs on a mix of privately and publicly owned lands, only some of which are managed for conservation. Any occurrences of the beetle on private land or non-conservation public land are vulnerable to the effects of habitat degradation if natural disturbance regimes are disrupted because the species requires active management to keep the habitat functional in the absence of such disturbances. Prolonged lack of fire in pine rockland habitat leads to vegetation encroachment into the open or sparsely vegetated sandy areas that are required by the beetle. Further development and degradation of pine rocklands increases fragmentation and decreases the conservation value of the remaining functioning pine rockland habitat. In addition, pine rocklands are expected to be further degraded and fragmented due to anticipated sea level rise, which would fully or partially inundate some pine rocklands within the Miami Rock Ridge and cause increases in the salinity of the water table and soils, resulting in vegetation shifts. Also, portions of the Richmond Pine Rocklands are proposed for commercial development and some existing pine rockland areas are projected to be developed for housing as the human population grows and adjusts to changing sea levels.

Pesticides used in and around pine rockland habitat are a potential threat to the Miami tiger beetle through direct exposure to adults and larvae; secondary exposure from insect prey; an overall reduction in availability of adult and larval prey, thus limiting foraging opportunities; or any combination of these factors. Based on Miami-Dade Mosquito Control's implementation of spray buffers around pine rocklands occupied by the Miami tiger beetle, mosquito control pesticides are not considered a current threat for the species. However, if these buffers were to change or Miami tiger beetles were found in habitat without restrictions of

pesticide applications, then the threat of exposure would need to be reevaluated.

The features essential to the conservation of the Miami tiger beetle (i.e., open or sparsely vegetated areas of pine rockland habitat that are at least 2.5 ac (1.0 ha) in size) may require special management considerations or protection to reduce threats. Actions that could ameliorate threats include, but are not limited to:

(1) Restoration and management of existing and potential Miami tiger beetle habitats throughout the Miami Rock Ridge using prescribed fire and control of invasive, nonnative plants;

(2) Protection of habitat adjacent to existing and new occurrences of the species to provide dispersal corridors, support the prey base, protect core habitat, and allow for appropriate habitat management;

(3) Use of pesticide spray buffers to prevent potential exposure to the species and probable limitation of foraging opportunities; and

#### **Criteria Used To Identify Critical Habitat**

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are designating critical habitat in areas within the geographical area occupied by the species at the time of listing and that contain one or more of the physical or biological features that are essential to support life-history processes of the species. We have determined that occupied areas are inadequate to ensure the conservation of the species. Therefore, we are designating additional areas as unoccupied critical habitat. Although we do not have definitive information that these areas were historically or are currently occupied by the Miami tiger beetle, they are within the historical range of the species and contain remnant south Florida pine rockland habitat. We have determined that it is reasonably certain that the unoccupied areas will both contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species. Accordingly, we find these areas to be

essential for the conservation of the species, as further discussed below.

The historical range of the Miami tiger beetle is limited to Miami-Dade County, Florida, specifically within the Northern Biscayne Pinelands of the Miami Rock Ridge. Over 98 percent of the Miami Rock Ridge pine rocklands outside of the Everglades has been lost to development, reducing the current range of the Miami tiger beetle to the southern portion of the Northern Biscayne Pinelands, in the Richmond Pine Rocklands and Nixon Smiley Pineland Preserve.

We anticipate that recovery will require not only continued protection of the remaining extant populations and remnant pine rockland habitat but also establishment of populations in additional areas of Miami-Dade County to ensure there are adequate numbers of beetles and stable populations occurring over the entire geographic range of the Miami tiger beetle. This will help to reduce the chance that catastrophic events, such as storms, will simultaneously affect all known populations.

The two extant Miami tiger beetle populations are small and at risk of adverse effects from reduced genetic variation, an increased risk of inbreeding depression, and reduced reproductive output. In addition, the two populations are isolated from each other, decreasing the likelihood that they could be naturally reestablished if extirpation from one location would occur.

In selecting areas for critical habitat, we used the conservation principles of the "three Rs"—resiliency, redundancy, and representation (Shaffer and Stein 2000, entire)—for conserving imperiled species. Resiliency is the ability to sustain populations through the natural range of favorable and unfavorable conditions. Redundancy ensures an adequate number of sites with resilient populations such that the species has the ability to withstand catastrophic events. Representation ensures adaptive capacity within a species and allows it to respond to environmental changes. This can be facilitated by conserving not just genetic diversity, but also the species' associated habitat type variation. Implementation of this methodology has been widely accepted as a reasonable conservation strategy (Tear et al. 2005, p. 841).

To ensure sufficient representation for the Miami tiger beetle, we described the physical or biological features (as discussed above) and identified areas of habitat that may provide for reintroduction and expansion of the Miami tiger beetle. Redundancy can be

improved through the introduction of additional populations of the Miami tiger beetle at other pine rockland sites. However, throughout the species' range, the amount of suitable remaining pine rockland is limited (low resiliency), and much of the remaining habitat may be significantly altered because of climate change over the next century. Therefore, we reviewed available sites containing pine rockland habitat within the historical range of the species and evaluated each site for its potential conservation contribution based on quality of habitat, spatial arrangement relative to the two extant populations and each other, and potential for supporting introduced Miami tiger beetle populations, as evidenced by existing protections and management of the habitat and sites, to determine additional areas that are essential for the Miami tiger beetle's conservation.

#### *Sources of Data To Identify Critical Habitat Boundaries*

We have determined that the areas known to be occupied at the time of listing should be designated as critical habitat for the Miami tiger beetle. However, because the species' redundancy and representation are currently low, we also used habitat and historical occurrence data to identify unoccupied habitat areas that are essential for the conservation of the species. To determine the general extent, location, and boundaries of critical habitat, the Service used Esri ArcGIS mapping software for mapping and calculating areas (Albers Conical Equal Area (Florida Geographic Data Library), North American Datum of 1983 (NAD 83) High Accuracy Reference Network (HARN)) along with the following spatial data layers:

(1) Historical and current records of Miami tiger beetle occurrences and distributions found in publications, reports, personal communications, and associated voucher specimens housed at museums and private collections (Knisley 2015a, entire);

(2) Geographic information system (GIS) data showing the location and extent of documented occurrences of pine rockland habitat (Cooperative Land Cover Version 3.3. FWC and FNAI 2018);

(3) Aerial imagery (Esri ArcGIS online basemap World Imagery. South Florida Water Management District GIS Services, Earthstar Geographics, Miami-Dade County, Florida Department of Environmental Protection, Esri, HERE, Garmin, SafeGraph, Ministry of Economy, Trade, and Industry of Japan and the U.S. National Aeronautics and Space Administration, U.S. Geological

Survey, Environmental Protection Agency, National Park Service, U.S. Department of Agriculture 2019); and

(4) GIS data depicting soils and to determine the presence of the physical or biological features essential to the conservation of the Miami tiger beetle (U.S. Department of Agriculture 2020).

When designating critical habitat, we consider future recovery efforts and conservation of the species. We have determined that all currently known occupied habitat should be designated as critical habitat because any further degradation or loss of the extant populations or occupied habitat would increase the Miami tiger beetle's susceptibility to local extirpation and ultimately extinction. The species occurs in two populations, Richmond and Nixon Smiley, separated from each other by approximately 3.1 mi (5 km) of urban development.

We are also including pine rockland habitat within the Richmond Pine Rocklands directly adjacent to sites with documented occurrences in the Richmond population. Due to their proximity to documented occurrences, the continuity of habitat, and presence of all of the essential physical or biological features, we have determined these areas are within the geographical area occupied by the species consistent with 50 CFR 424.02. Additionally, these areas are essential for the conservation of the species because they protect the Richmond population, provide dispersal corridors for the Richmond population, provide potential habitat for population expansion, and support prey-base populations. These areas are important to ensure redundancy for the species, and they improve the species' viability.

#### *Areas Outside of the Geographical Range at the Time of Listing*

Lastly, we are including other suitable or potentially suitable pine rockland fragments outside of the Richmond Pine Rocklands and Nixon Smiley Pineland Preserve that are located within the beetle's historical range along the Northern Biscayne Pinelands of the Miami Rock Ridge but are not known to be currently occupied by the species. With only two known occupied areas, we have determined these areas are essential for the conservation of the species because they will enable the establishment of new populations in additional areas that more closely approximate the species' historical distribution. Establishment of new populations will help ensure that there are adequate numbers of beetles in multiple populations over a wide geographic area, so that catastrophic events, such as storms, would be less

likely to simultaneously affect all known populations.

The best available data regarding the minimum area and number of individuals necessary for a viable population come from information regarding the Highlands tiger beetle; the information describes estimates of a minimum of 100 adult Highlands tiger beetles in an area of at least 2.5 to 5.0 ac (1.0 to 2.0 ha) (Knisley and Hill 2013, p. 42). This estimate is based on observations of population stability for the Highlands tiger beetle, as well as survey data and literature from other tiger beetle species. From the remaining suitable or potentially suitable pine rockland fragments that were delineated for the Miami Rock Ridge, we excluded fragments below the 2.5-ac (1.0-ha) minimum area for a viable population. As such, we evaluated the remaining unoccupied pine rockland habitat within and directly adjacent to the Northern Biscayne Pinelands of the Miami Rock Ridge to identify remnant pine rocklands with the highest quality habitat potential (*i.e.*, actively managed to support pine rocklands) and of sufficient size (patches at least 2.5 ac (1.0 ha)) to provide for the conservation of the Miami tiger beetle.

The Miami tiger beetle has been extirpated from its type-locality (the place where the species was first discovered) in North Miami and is historically unknown from any other locations. In addition to including areas of the two extant populations (Richmond Pine Rocklands and Nixon Smiley Pineland Preserve) in critical habitat, we are also including 14 unoccupied critical habitat units that we have determined to be essential for the conservation of the Miami tiger beetle. These areas contain pine rockland habitat within the historical range in the Northern Biscayne Pinelands on the Miami Rock Ridge and encompass approximately 405 ac (164 ha) or 22 percent of critical habitat. These areas are habitat for the species and can support its life history needs. As discussed above, we have determined that recovery requires additional populations be established in high-quality pine rockland habitat that is protected and actively managed. Following a review of available sites containing pine rockland habitat within the historical range of the species, we evaluated each site for its potential conservation contribution based on quality of habitat (including presence of one or more of the essential physical or biological features), spatial arrangement relative to the two extant populations and each other, and potential for reintroduction, evidenced by existing



protections and management. This review led to our determination that the most viable sites for introduction and conservation of the Miami tiger beetle are the 14 unoccupied sites identified in this final rule. As a result, we concluded that these 14 sites are essential for the conservation of the species. Thus, we are including them as critical habitat for the Miami tiger beetle.

We used the best available data to delineate existing pine rockland habitat units that are of sufficient size to support introduced populations of Miami tiger beetles and that are spatially configured to support metapopulation dynamics and to minimize adverse impacts from stochastic events. In identifying these areas, we considered the following refining criteria:

(1) Areas of sufficient size to support ecosystem processes for populations of the Miami tiger beetle. The best available information indicates that appropriately sized units should be, at a minimum, 2.5 to 5.0 ac (1.0 to 2.0 ha). Large contiguous parcels of habitat are more likely to be resilient to ecological processes of disturbance and are more likely to support a viable population of the Miami tiger beetle. The unoccupied areas selected range from 7 ac (3 ha) in size to 89 ac (36 ha).

(2) Areas to maintain connectivity of habitat to allow for population expansion. Isolation of habitat can prevent recolonization of the Miami tiger beetle and result in local extirpation and ultimately extinction. To ameliorate the dangers associated with small populations or limited distributions, we have identified areas of critical habitat that will allow for the natural expansion of populations or support reintroductions.

(3) Restored pine rockland habitats may allow the Miami tiger beetle to disperse, recolonize, or expand from areas already occupied by the beetle. These restored areas generally are habitats within or adjacent to pine rocklands that have been affected by natural or anthropogenic factors but retain habitat features that make them suitable for the beetle. These areas would help offset the anticipated loss and degradation of habitat occurring or expected from natural succession in the absence of disturbance, effects of climate change (such as sea level rise), or development.

In summary, for areas within the geographical area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) We evaluated habitat suitability of pine rockland habitat within the

geographical area occupied at the time of listing, and selected those areas that contain one or more of the physical or biological features to support life-history functions essential for conservation of the species; and

(2) We identified open sandy areas directly adjacent to occupied areas and with little to no vegetation that allow for or facilitate normal behavior and growth of the Miami tiger beetle, such as thermoregulation, foraging, egg-laying, larval development, and habitat connectivity, and which promote the overall distribution and expansion of the species.

The result was the inclusion of two units of critical habitat occupied by the Miami tiger beetle. Approximately 945 ac (383 ha) or 71 percent of the occupied units are existing critical habitat for other species.

For areas outside the geographical area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) We identified areas with pine rockland habitat that contain habitat components used by the beetle and are of sufficient size to support introduced populations of the Miami tiger beetle; and

(2) We identified areas that are spatially configured to support metapopulation dynamics, minimize adverse impacts from stochastic events, and maintain representation of the historical range of the species.

The result was the inclusion of 14 units of critical habitat not occupied by the Miami tiger beetle at the time of listing. These 14 units encompass approximately 405 ac (164 ha) or 22 percent of critical habitat and overlap with approximately 388 ac (158 ha) of existing critical habitat for other listed species. All 14 units are either publicly owned or privately owned conservation lands (*i.e.*, Porter Pineland Preserve, which is owned and managed by the Audubon Society).

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for the Miami tiger beetle. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat. Therefore,

a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action will affect the physical or biological features in the adjacent critical habitat.

We are designating as critical habitat areas that we have determined were occupied at the time of listing (and are currently occupied) and that contain one or more of the physical or biological features that are essential to support life-history processes of the species. We have determined that occupied areas are inadequate to ensure the conservation of the species. Therefore, we also identified and designated as critical habitat unoccupied areas that are essential for the conservation of the species.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under Regulation Promulgation. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053 and on our internet site at <https://www.fws.gov/office/florida-ecological-services/library>.

#### Final Critical Habitat Designation

We are designating 16 units as critical habitat for the Miami tiger beetle. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Miami tiger beetle. The 16 areas we designate as critical habitat are: (1) Trinity Pineland, (2) Rockdale Pineland, (3) Deering Estate South Addition, (4) Ned Glenn Nature Preserve, (5) Deering Estate at Cutler, (6) Silver Palm Groves Pineland, (7) Quail Roost Pineland, (8) Eachus Pineland, (9) Bill Sadowski Park, (10) Tamiami Pineland Complex Addition, (11) Pine Shore Pineland Preserve, (12) Nixon Smiley Pineland Preserve, (13) Boystown Pineland Preserve, (14) Richmond Pine Rocklands, (15) Calderon Pineland, and (16) Porter Pineland Preserve. Table 1 shows the critical habitat units, the occupancy by the Miami tiger beetle at the time it was listed under the Act, the approximate area of each unit, and the extent of overlap with designated critical habitat for other federally listed species.

TABLE 1—CRITICAL HABITAT UNITS FOR THE MIAMI TIGER BEETLE, INCLUDING OCCUPANCY AND EXTENT OF OVERLAPPING CRITICAL HABITAT FOR OTHER FEDERALLY LISTED SPECIES

Unit No.	Unit name	Occupancy at time of listing	Total area (ac (ha))	Area of overlap with existing critical habitat (ac (ha))
1	Trinity Pineland	No	10 (4)	10 (4)
2	Rockdale Pineland	No	39 (16)	38 (15)
3	Deering Estate South Addition	No	16 (6)	15 (6)
4	Ned Glenn Nature Preserve	No	11 (5)	11 (5)
5	Deering Estate at Cutler	No	89 (36)	84 (34)
6	Silver Palm Groves Pineland	No	25 (10)	22 (9)
7	Quail Roost Pineland	No	48 (19)	47 (19)
8	Eachus Pineland	No	17 (7)	17 (7)
9	Bill Sadowski Park	No	20 (8)	19 (8)
10	Tamiami Pineland Complex Addition	No	21 (8)	19 (8)
11	Pine Shore Pineland Preserve	No	8 (3)	8 (3)
12	Nixon Smiley Pineland Preserve	Yes	117 (47)	115 (47)
13	Boystown Pineland Preserve	No	81 (33)	77 (31)
14	Richmond Pine Rocklands	Yes	1,347 (545)	830 (336)
15	Calderon Pineland	No	14 (6)	14 (6)
16	Porter Pineland Preserve	No	7 (3)	7 (3)
Total			1,869 (756)	1,335 (540)

Note: Area sizes may not sum due to rounding.

Approximately 71 percent (1,335 ac (540 ha)) of the critical habitat designated for the Miami tiger beetle overlaps with currently designated Federal critical habitat for the Carter’s small-flowered flax (*Linum carteri* var. *carteri*), the Florida brickell-bush (*Brickellia mosieri*), Bartram’s scrub-hairstreak butterfly (*Strymon acis bartrami*), and the Florida leafwing butterfly (*Anaea troglodyta floralidis*).

Further, approximately 4 percent (16 ac (7 ha)) of unoccupied critical habitat designated is unique to the Miami tiger beetle, *i.e.*, does not overlap with existing designated Federal critical habitat. Please refer to table 1, above, for the area of overlap with other federally designated critical habitat and to specific unit descriptions below for which currently designated Federal critical habitat overlaps with each

critical habitat unit for the Miami tiger beetle.

Tables 2 and 3, below, show the approximate land ownership for each critical habitat unit and the proportion of critical habitat for each landownership category, respectively. All but 1 ac (0.6 ha) of the area designated is either publicly owned or privately owned for conservation.

TABLE 2—CRITICAL HABITAT UNITS FOR THE MIAMI TIGER BEETLE BY LAND OWNERSHIP

Critical habitat unit	Area (ac (ha))	Land ownership			
		Federal	State	County	Private
1—Trinity Pineland	10 (4)		10 (4)		
2—Rockdale Pineland	39 (16)		38 (15)	1 (<1)	
3—Deering Estate South Addition	16 (6)		16 (6)		
4—Ned Glenn Nature Preserve	11 (5)			11 (5)	
5—Deering Estate at Cutler	89 (36)			89 (36)	
6—Silver Palm Groves Pineland	25 (10)		20 (8)	5 (2)	
7—Quail Roost Pineland	48 (19)		48 (19)		
8—Eachus Pineland	17 (7)			17 (7)	
9—Bill Sadowski Park	20 (8)			20 (8)	
10—Tamiami Pineland Complex Addition	21 (8)		21 (8)		
11—Pine Shore Pineland Preserve	8 (3)			8 (3)	
12—Nixon Smiley Pineland Preserve	117 (47)			117 (47)	
13—Boystown Pineland Preserve	81 (33)		76 (31)	5 (2)	
14—Richmond Pine Rocklands	1,347 (545)	488 (197)		841 (340)	18 (7)
15—Calderon Pineland	14 (6)			14 (6)	
16—Porter Pineland Preserve	7 (3)				7 (3)
Total	1,869 (756)	488 (197)	229 (93)	1,127 (456)	26 (10)

Note: Area sizes may not sum due to rounding.

TABLE 3—PROPORTIONMENT OF LAND OWNERSHIP OF CRITICAL HABITAT FOR THE MIAMI TIGER BEETLE

Land ownership	Area (ac (ha))	Percent ownership
Federal .....	488 (197)	26
State .....	229 (93)	12
County .....	1,127 (456)	60
Private .....	26 (10)	1
Total .....	1,869 (756)	.....

**Note:** Area sizes may not sum due to rounding.

In addition, over half of the designated critical habitat for the Miami tiger beetle (1,121 ac (454 ha), or 60 percent) is under a Miami-Dade County Natural Forest Communities (NFC) designation. Miami-Dade County’s NFC designation enacts regulations on habitat alterations to minimize damage to and protect environmentally sensitive forest lands, including pine rocklands. NFC regulations are designed to prevent clearing or destruction of native vegetation within preserved areas. Please see the unit descriptions below for the specific amount of each unit that is enrolled in the NFC program.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Miami tiger beetle, below.

*Unit 1: Trinity Pineland*

Unit 1 consists of approximately 10 ac (4 ha) of State-owned land in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain a healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution

falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned or managed by Miami-Dade County, including this unit. These actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 1 overlaps with designated critical habitat for Carter’s small-flowered flax and Florida brickell-bush. Additionally, approximately 8 ac (3 ha), or 80 percent, of Unit 1 is enrolled in the NFC program.

*Unit 2: Rockdale Pineland*

Unit 2 consists of approximately 39 ac (16 ha) of lands owned by the State (38 ac (15 ha)) and county (1 ac (<1 ha)) in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions

help improve habitat that could support the Miami tiger beetle.

All but 1 ac (<1 ha) of Unit 2 overlaps with designated critical habitat for Carter’s small-flowered flax and Florida brickell-bush. Additionally, approximately 28 ac (11 ha), or 72 percent, of Unit 2 are enrolled in the NFC program.

*Unit 3: Deering Estate South Addition*

Unit 3 consists of approximately 16 ac (6 ha) of State-owned land in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned or managed by Miami-Dade County, including this unit. The actions help improve habitat that could support the Miami tiger beetle.

All but 1 ac (<1 ha) of Unit 3 overlaps with designated critical habitat for Carter’s small-flowered flax and Florida brickell-bush. Additionally, approximately 15 ac (6 ha), or 94 percent, of Unit 3 is enrolled in the NFC program.

*Unit 4: Ned Glenn Nature Preserve*

Unit 4 consists of approximately 11 ac (5 ha) of county-owned land in Miami-

Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 4 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 11 ac (5 ha), or 100 percent, of Unit 4 is enrolled in the NFC program.

#### *Unit 5: Deering Estate at Cutler*

Unit 5 consists of approximately 89 ac (36 ha) of county-owned land in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species

because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

All but 5 ac (2 ha) of Unit 5 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 84 ac (34 ha), or 94 percent, of Unit 5 is enrolled in the NFC program.

#### *Unit 6: Silver Palm Groves Pineland*

Unit 6 consists of approximately 25 ac (10 ha) of lands owned by the State (20 ac (8 ha)) and county (5 ac (2 ha)) in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is

protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

All but 3 ac (1 ha) of Unit 6 overlaps with designated critical habitat for Bartram's scrub-hairstreak butterfly, Carter's small-flowered flax, and Florida brickell-bush. Additionally, approximately 18 ac (7 ha), or 72 percent, of Unit 6 is enrolled in the NFC program.

#### *Unit 7: Quail Roost Pineland*

Unit 7 consists of approximately 48 ac (19 ha) of State-owned land in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned or

managed by Miami-Dade County, including this unit. The actions help improve habitat that could support the Miami tiger beetle.

All but 1 ac (<1 ha) of Unit 7 overlaps with designated critical habitat for Bartram's scrub-hairstreak butterfly, Carter's small-flowered flax, and Florida brickell-bush. Additionally, approximately 32 ac (13 ha), or 67 percent, of Unit 7 is enrolled in the NFC program.

#### *Unit 8: Eachus Pineland*

Unit 8 consists of approximately 17 ac (7 ha) of county-owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 8 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 14 ac (6 ha), or 82 percent, of Unit 8 is enrolled in the NFC program.

#### *Unit 9: Bill Sadowski Park*

Unit 9 consists of approximately 20 ac (8 ha) of county-owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

All but 1 ac (<1 ha) of Unit 9 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 19 ac (8 ha), or 95 percent, of Unit 9 is enrolled in the NFC program.

#### *Unit 10: Tamiami Pineland Complex Addition*

Unit 10 consists of approximately 21 ac (8 ha) of State-owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of

the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned or managed by Miami-Dade County, including this unit. The actions help improve habitat that could support the Miami tiger beetle.

All but 2 ac (<1 ha) of Unit 10 overlaps with designated critical habitat for Bartram's scrub-hairstreak butterfly, Carter's small-flowered flax, and Florida brickell-bush. Additionally, approximately 18 ac (7 ha), or 86 percent, of Unit 10 is enrolled in the NFC program.

#### *Unit 11: Pine Shore Pineland Preserve*

Unit 11 consists of approximately 8 ac (3 ha) of county-owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in

Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 11 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 7 ac (3 ha), or 86 percent, of Unit 11 is enrolled in the NFC program.

#### *Unit 12: Nixon Smiley Pineland Preserve*

Unit 12 consists of approximately 117 ac (47 ha) of county-owned lands in Miami-Dade County. Based on unpublished survey data that documented presence of the Miami tiger beetle (D. Cook 2015, pers. comm.), this unit was occupied at the time of listing and is currently occupied by the Miami tiger beetle. While surveys of this site have been inconsistent in level of effort, timing, and frequency, they have primarily focused on the habitat previously known to be occupied: The open, sandy areas on the western half of the property.

This occupied habitat contains all of the physical or biological features, including pine rockland habitat (of sufficient size) with open or sparsely vegetated sandy areas that allow for thermoregulation, foraging, egg-laying, larval development, species dispersal, and population expansion, and natural or artificial disturbance regimes. The physical or biological features in this unit are protected and actively managed to maintain healthy pine rockland habitat. They may require additional special management considerations or protection to address threats of habitat loss and fragmentation, inadequate fire management, vegetation encroachment, and sea level rise. In some cases, there are management actions being implemented to reduce some of these threats, and continued coordination with our partners and landowners are

ongoing to implement needed actions. This unit is occupied by one of two extant populations of Miami tiger beetle, contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

All but 2 ac (<1 ha) of Unit 12 overlaps with designated critical habitat for Bartram's scrub-hairstreak butterfly, Carter's small-flowered flax, and Florida brickell-bush. Additionally, approximately 112 ac (47 ha), or 96 percent, of Unit 12 is enrolled in the NFC program.

#### *Unit 13: Boystown Pineland Preserve*

Unit 13 consists of approximately 81 ac (33 ha) of lands owned by the State (76 ac (31 ha)) and county (5 ac (2 ha)) in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species

control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

All but 3 ac (1 ha) of Unit 13 overlaps with designated critical habitat for Bartram's scrub-hairstreak butterfly, Carter's small-flowered flax, and Florida brickell-bush. Additionally, approximately 62 ac (25 ha), or 77 percent, of Unit 13 is enrolled in the NFC program.

#### *Unit 14: Richmond Pine Rocklands*

Unit 14 consists of approximately 1,347 ac (545 ha) in Miami-Dade County. Landownership in this unit is split among Federal (488 ac (197 ha)), county (841 ac (340 ha)), and private (18 ac (7 ha)). We excluded approximately 109.3 ac (44.2 ha) from the unit (a decrease of approximately 109.3 ac [44.2 ha] from the proposed rule) (see *Coral Reef Commons Habitat Conservation Plan*, below). Based on survey data that documented presence of the Miami tiger beetle, this unit is currently occupied by the Miami tiger beetle, which has been documented from four contiguous parcels within the Richmond Pine Rocklands: Zoo Miami Pine Rockland Preserve (Zoo Miami), Larry and Penny Thompson Park, U.S. Coast Guard, and University of Miami's CSTARS. Miami tiger beetles within the four contiguous occupied parcels in the Richmond population are within close proximity to each other, with connecting patches of habitat with few or no barriers between parcels. Given the contiguous habitat with few barriers to dispersal, frequent adult movement among individuals is likely, and the occupied Richmond parcels likely represent a single population (Knisley 2015a, p. 10).

The unit also includes areas of pine rockland habitat containing all of the physical or biological features essential to the conservation of the species that are adjacent to sites with documented occurrences. The complex, including these parcels, contains all of the essential features (physical or biological features)—including pine rockland habitat (of sufficient size) with open or sparsely vegetated sandy areas that allow for thermoregulation, foraging, egg-laying, larval development, species dispersal, and population expansion, and natural or artificial disturbance regimes. The complex as a whole protects the occupied sites within the Richmond population, provides dispersal corridors for the Richmond population, provides potential habitat for population expansion, and supports prey-base populations. Being only one of two sites known to be currently

occupied by the Miami tiger beetle, this complex is important to the Miami tiger beetle to ensure redundancy for the species and to contribute to the species' viability.

The physical or biological features in this unit may require additional special management considerations or protection to address threats of habitat loss and fragmentation, inadequate fire management, vegetation encroachment, and sea level rise. In some cases, these threats are being addressed or coordinated with our partners and landowners to implement needed actions.

Approximately 678 ac (274 ha), or 50 percent, of Unit 14 is enrolled in the NFC program. In addition, of the approximately 1,347 ac (545 ha) of critical habitat designated for the Miami tiger beetle in Unit 14, about 830 ac (336 ha) overlap with designated critical habitat for Bartram's scrub-hairstreak butterfly, Florida leafwing butterfly, Carter's small-flowered flax, and Florida brickell-bush. Therefore, approximately 517 ac (209 ha) of designated critical habitat in Unit 14 is unique to the Miami tiger beetle.

#### *Unit 15: Calderon Pineland*

Unit 15 consists of approximately 14 ac (6 ha) of county-owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Natural Areas Management Division of Miami-Dade County Parks, Recreation and Open Spaces Department conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 15 overlaps with designated critical habitat for Florida brickell-bush. Additionally, approximately 9 ac (4 ha), or 64 percent, of Unit 15 is enrolled in the NFC program.

#### *Unit 16: Porter Pineland Preserve*

Unit 16 consists of approximately 7 ac (3 ha) of privately owned lands in Miami-Dade County. The unit is within the historical range of the Miami tiger beetle (*i.e.*, pine rockland habitat within the Northern Biscayne Pinelands of the Miami Rock Ridge), although we are not aware of any records of historical occupancy of the unit. This unit includes all the physical or biological features essential to the conservation of the species and is protected and actively managed to maintain healthy pine rockland habitat.

This unit is currently unoccupied by the Miami tiger beetle but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should the Miami tiger beetle be extirpated from one of its current locations. Given this unit contains essential habitat features (all of the physical or biological features), is protected and actively managed, and has an appropriate spatial distribution falling within the range of the species, we are reasonably certain that the lands and habitat within this unit will contribute to the conservation of the Miami tiger beetle.

The Audubon Society, with the help of volunteers and other conservation groups, conduct nonnative species control, prescribed fire, and mechanical vegetation treatments on this privately owned parcel. The actions help improve habitat that could support the Miami tiger beetle.

The entirety of Unit 16 overlaps with designated critical habitat for Carter's small-flowered flax and Florida brickell-bush. Additionally, approximately 6 ac (2 ha), or 86 percent, of Unit 16 is enrolled in the NFC program.

## **Effects of Critical Habitat Designation**

### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers (USACE) under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR



402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, if subsequent to the previous consultation: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but Congress also enacted some exceptions in 2018 to the requirement to reinitiate consultation on certain land management plans on the basis of a new species listing or new designation of critical habitat that may be affected by the subject Federal action. See 2018 Consolidated Appropriations Act, Public Law 115–141, Div. O, 132 Stat. 1066 and 1067 (2018).

#### *Application of the "Adverse Modification" Standard*

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the

designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that the Service may, during a consultation under section 7(a)(2) of the Act, consider likely to destroy or adversely modify critical habitat include, but are not limited to:

(1) Actions that would significantly alter the hydrology or substrate, such as ditching or filling. Such activities may include, but are not limited to, road construction or maintenance, and residential, commercial, or recreational development.

(2) Actions that would significantly alter vegetation structure or composition. Such activities may include, but are not limited to, preventing the ability to conduct prescribed burns, residential and commercial development, and recreational facilities and trails.

(3) Actions that would introduce chemical pesticides into the pine rockland ecosystem in a manner that impacts the Miami tiger beetle. Such activities may include, but are not limited to, mosquito control and agricultural pesticide applications.

(4) Actions that would introduce nonnative species that would significantly alter vegetation structure or composition or the life history of the Miami tiger beetle. Such activities may include, but are not limited to, release of parasitic or predator species (flies or wasps) for use in agriculture-based biological control programs.

#### **Exemptions**

##### *Application of Section 4(a)(3) of the Act*

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DoD), or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act (16

U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is designated. There are no DoD lands with a completed INRMP within the final critical habitat designation.

Further, we are not aware of any DoD lands subject to an INRMP within the boundaries of the critical habitat designation. We have determined that the U.S. Army Corps of Engineers (USACE), a branch of the DoD, retains ownership over a 121-ac (49-ha) parcel in Unit 14 of the designation of critical habitat; of this parcel, 85 ac (34 ha) are forested but not managed for preservation of natural resources. These USACE lands are not considered a military installation under the Sikes Act subject to an INRMP, so they do not meet the standards of section 4(a)(3)(B)(i) of the Act. As a result, we are not exempting any lands from this designation of critical habitat for the Miami tiger beetle pursuant to section 4(a)(3)(B)(i) of the Act.

#### **Consideration of Impacts Under Section 4(b)(2) of the Act**

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the 2016 Policy (81 FR 7226; February 11, 2016)—both of which were developed jointly with the National Marine Fisheries Service. We also refer to a 2008 Department of the Interior Solicitor's opinion entitled, "The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act" (M–37016). We explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable.

The Secretary may exclude any particular area if she determines that the benefits of such exclusion outweigh the benefits of including such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making the determination to exclude a particular area, the statute on its face, as well as the legislative history,

are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction of adverse modification as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. In the case of the Miami tiger beetle, the benefits of critical habitat include public awareness of the presence of beetle and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the species due to the protection from destruction or adverse modification of critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation or in the continuation, strengthening, or encouragement of partnerships. Additionally, continued implementation of an ongoing management plan that provides equal to or more conservation than a critical habitat designation would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. We consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction,

we will not exclude it from the designation.

#### *Exclusions Based on Economic Impacts*

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which, together with our narrative and interpretation of effects, we consider our draft economic analysis (DEA) of the critical habitat designation and related factors (IEc 2022 entire). The DEA was made available for public review from September 7, 2021, through December 23, 2021 (see 86 FR 49945, September 7, 2021, and 86 FR 61745, November 8, 2021). The DEA addressed probable economic impacts of critical habitat designation for the Miami tiger beetle. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Information relevant to the probable incremental economic impacts of critical habitat designation for the Miami tiger beetle is summarized below and available in the screening analysis (IEc 2022, entire), available at <https://www.regulations.gov>.

In our evaluation of the probable incremental economic impacts that may result from the designation of critical habitat for the Miami tiger beetle, first we identified, in the IEM dated April 28, 2021, probable incremental economic impacts associated with the following categories of activities: (1) Federal lands management (U.S. Coast Guard, USACE, Federal Bureau of Prisons (FBP), and National Oceanic and Atmospheric Administration (NOAA)); (2) roadway and bridge construction; (3) agriculture; (4) dredging; (5) storage and distribution of chemical pollutants; (6) commercial or residential development; and (7) recreation (including construction of recreation infrastructure). We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the Miami tiger beetle is present, Federal agencies already are required to consult with the

Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. With critical habitat for the Miami tiger beetle being finalized, our consultations will include an evaluation of measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we attempted to clarify the distinction between the effects that will result from the species being listed and those attributable to the critical habitat designation (*i.e.*, difference between the jeopardy and adverse modification standards) for the Miami tiger beetle's critical habitat. Because the designation of critical habitat for the Miami tiger beetle is being designated several years following the listing of the species, data, such as from consultation history, is available to help us discern which conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. The following specific circumstances also help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would result in sufficient harm to constitute jeopardy to the Miami tiger beetle would also likely adversely affect the essential physical or biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between protections or economic impacts associated with listing and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this designation of critical habitat.

The critical habitat designation for the Miami tiger beetle totals approximately 1,869 ac (756 ha) in 16 units in Miami-Dade County, Florida. Two of the 16 units are currently occupied by the Miami tiger beetle; the remaining 14 units are within the beetle's historical range but were not occupied at the time the species was listed in 2016 and are not known to be currently occupied. As previously stated, the 14 unoccupied critical habitat units encompass approximately 405 ac (164 ha) or 22 percent of critical habitat for the Miami tiger beetle, of which only 16 ac (7 ha) or 4 percent are not currently designated as critical habitat for other federally listed species. Tables 1 through 3, above, set forth specific information concerning each unit, including occupancy, land ownership, and extent of overlap with existing Federal critical habitat.

Because the majority (78 percent) of the area designated is occupied, most actions that may adversely modify designated critical habitat may also adversely affect the species, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the Miami tiger beetle or minimize any take associated with the Federal action. Therefore, only administrative costs are expected in approximately 78 percent of the critical habitat designation. While the analysis for adverse modification of critical habitat will require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant.

The remaining designated area is unoccupied, but most (96 percent of the unoccupied area) of it overlaps with existing designated critical habitat for other pine rockland habitat species, including Carter's small-flowered flax, Florida brickell-bush, Bartram's scrub hairstreak butterfly, and the Florida leafwing butterfly. As a result, consultations for other listed species and critical habitats are likely to have already resulted in protections absent the critical habitat designation for the Miami tiger beetle, and recommendations for those species are anticipated to be sufficient to protect Miami tiger beetle's critical habitat. Further, any consultation requirements for listed species and resulting costs would be at least partially split among each overlapped species with not one species being the sole source of the entire costs. Accordingly, in these unoccupied areas, any conservation efforts or associated probable impacts would be considered incremental effects attributed to the critical habitat designation.

The probable incremental economic impacts of the Miami tiger beetle critical habitat designation are expected to be limited to additional administrative effort as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This is due to two factors: (1) A large portion (78 percent) of critical habitat is considered to be occupied by the species, and incremental economic impacts of critical habitat designation, other than administrative costs, are unlikely; and (2) in areas that are not occupied by the Miami tiger beetle (22 percent of the designation), nearly all is designated

critical habitat for other pine rockland species and this designation is not likely to result in additional or different project modifications from those that would already be anticipated absent this designation. Because of the relatively small size of the critical habitat designation for the Miami tiger beetle, the volume of lands that are State, county, or privately owned, and the substantial amount of land that is already being managed for conservation, the numbers of section 7 consultations expected annually are modest (approximately 2 formal, 12 informal, and 14 technical assistance efforts annually across the designation).

Some potential private property value effects are possible due to public perception of impacts to private lands. The designation of critical habitat may cause some developers or landowners to perceive that private land will be subject to use restrictions or litigation from third parties, resulting in costs. However, approximately 1 percent of the critical habitat designation is privately owned land, leading to nominal incremental costs arising from changes in public perception of lands included in this designation.

Critical habitat designation for the Miami tiger beetle has been determined to not generate costs or benefits exceeding \$100 million in a single year. Therefore, this rule does not meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866. In fact, the total annual incremental costs of critical habitat designation for the Miami tiger beetle are anticipated to be less than \$48,000 per year, and economic benefits are also anticipated to be small.

The Service considered the economic impacts of this critical habitat designation. The Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for the Miami tiger beetle based on economic impacts.

#### *Exclusions Based on Impacts on National Security and Homeland Security*

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of "critical habitat." Nevertheless, when designating critical habitat under

section 4(b)(2) of the Act, we must consider impacts on national security, including homeland security, on lands or areas not covered by section 4(a)(3)(B)(i). Accordingly, we will always consider for exclusion from the designation areas for which DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns.

#### *DHS Land Parcel*

We have determined that some lands within Unit 14 of the designation of critical habitat for the Miami tiger beetle are owned, managed, or used by the U.S. Coast Guard, which is part of the DHS. The U.S. Coast Guard property is separated into two main areas: the Communication Station (COMMSTA) Miami and the Civil Engineering Unit (CEU). The COMMSTA houses transmitting and receiving antennas. The CEU plans and executes projects at regional shore facilities, such as construction and post-disaster assessments.

The U.S. Coast Guard parcel contains approximately 100 ac (40 ha) of standing pine rocklands. The remainder of the site, outside of the developed areas, is made up of scraped pine rocklands that are mowed three to four times per year for maintenance of a communications antenna field. While disturbed, this scraped area maintains sand substrate and many native pine rockland species, including documented occurrences of the Miami tiger beetle. As of May 2022, the U.S. Coast Guard parcel has a resource management plan that includes management of pine rockland habitats, including vegetation control, prescribed fire, and protection of lands from further development or degradation. In addition, the portions of the standing pine rockland area underwent vegetation thinning through an active recovery grant to the Institute for Regional Conservation. Under this grant, nearly 39 ac (16 ha) of standing pine rocklands underwent invasive vegetation control.

Based on a review of the specific mission of the U.S. Coast Guard facility in conjunction with the measures and efforts set forth in the draft management plan to preserve pine rockland habitat and protect sensitive and listed species, we have made a determination that it is unlikely that the designation of critical habitat would negatively impact the facility or its operations. As a result, we do not anticipate any impact on national security.

*DoD Land Parcel*

We have determined that USACE, a branch of the DoD, retains ownership over a 121-ac (49-ha) parcel in Unit 14 of the designation of critical habitat for the Miami tiger beetle. Over 85 ac (34 ha) of this parcel are forested but not managed for preservation of natural resources. The USACE does not have any specific management plan for the Miami tiger beetle or its habitat covering these lands. Activities conducted on this site are unknown, but we do not anticipate any impact on national security.

Following our process for coordinating with Federal partners, we contacted the DoD and DHS about this designation and shared the IEM for their feedback. Neither agency identified any potential national-security impact, nor requested an exclusion from critical habitat based on potential national-security impacts. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation based on impacts on national security.

*Exclusions Based on Other Relevant Impacts*

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs), or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of Tribal conservation plans and partnerships and consider the government-to-government relationship of the United States with Tribal entities. We also consider any social impacts that might occur because of the designation.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific

area is likely to result in conservation, or in the continuation, strengthening, or encouragement of partnerships.

In the case of the Miami tiger beetle, the benefits of critical habitat include public awareness of the presence of the Miami tiger beetle and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the Miami tiger beetle due to protection from destruction or adverse modification of critical habitat. Continued implementation of an ongoing management plan that provides conservation equal to or more than the protections that result from a critical habitat designation would reduce those benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. We consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Based on the information provided by entities seeking exclusion, as well as additional public comments we received, and the best scientific data available, we evaluated whether certain lands in proposed Unit 14 are appropriate for exclusion from this final designation under section 4(b)(2) of the Act. If the analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise her discretion to exclude the lands from the final designation. In the paragraphs below, we provide a detailed balancing analysis of the areas being excluded under section 4(b)(2) of the Act.

*Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitat. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an "enhancement of survival" permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. The Service also provides enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider areas covered by an approved CCAA/SHA/HCP and generally exclude such areas from a designation of critical habitat if three conditions are met:

(1) The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is, and has been, fully implementing the commitments and provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

(2) The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Service extends to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

(3) The CCAA/SHA/HCP specifically addresses the habitat of the species for

which critical habitat is being designated and meets the conservation needs of the species in the planning area.

#### *Coral Reef Commons Habitat Conservation Plan*

We have determined that lands associated with the Coral Reef Commons HCP were included within the boundaries of the proposed critical habitat, within Unit 14 (Richmond Pine Rocklands), for the Miami tiger beetle.

Coral Reef Commons is a mixed-use community, which consists of 900 apartments, retail stores, restaurants, and parking. In 2017, an HCP and associated permit under section 10 of the Act were developed and issued for the Coral Reef Commons development. As part of the HCP and permit, an approximately 53-ac (21-ha) onsite preserve (included in the area for proposed critical habitat designation) was established under a conservation encumbrance that will be managed in perpetuity for pine rockland habitat and sensitive and listed species, including the Miami tiger beetle. An additional approximately 57 ac (23 ha) of the CSTARS site is an offsite mitigation area for Coral Reef Commons. Both the onsite preserve and the offsite mitigation area are being managed to maintain healthy pine rockland habitat using invasive, exotic plant management, mechanical treatment, and prescribed fire, addressing both the habitat and conservation needs of the species. Since initiating the Coral Reef Commons HCP, pine rockland restoration efforts have been conducted within all of the management units in both the onsite preserve and the offsite mitigation area. A second round of prescribed fire began in February 2021. Currently, the onsite preserve meets or exceeds the success criteria described for proper implementation of the HCP.

Critical habitat within Unit 14 that is associated with the Coral Reef Commons HCP is limited to the onsite preserve and offsite mitigation area. Based on our review of the HCP and critical habitat for the Miami tiger beetle, we do not anticipate requesting any additional conservation measures for the species beyond those that are currently in place. The Coral Reef Commons HCP covers the Miami tiger beetle, addresses the specific habitat of the species and meets the conservation needs of the species, and is currently being implemented properly.

#### Benefits of Inclusion

The primary benefit of including the onsite preserve and offsite mitigation area associated with the Coral Reef

Commons HCP is the potential additional regulatory oversight to ensure that the preserve and mitigation area are being protected and managed according to the provisions and measures set forth in the HCP. However, because there is an existing record that the Miami tiger beetle is a covered species under the HCP and because the provisions and measures set forth in the HCP for the management of these areas for pine rockland habitat and the Miami tiger beetle are being fully implemented, the additional benefits of the inclusion of these areas in designated critical habitat is estimated to be small. Further, as a result of the above and the continued productive partnership Coral Reef Commons has demonstrated, we do not anticipate requesting any additional conservation measures for the species and its habitat, thus additionally suggesting that the benefit of the inclusion of these parcels in critical habitat to be minimal.

A secondary benefit to the inclusion of the onsite preserve and offsite mitigation area in critical habitat for the Miami tiger beetle is an educational benefit through ensuring public awareness regarding the importance of these specific parcels to the Miami tiger beetle and its long-term conservation. Since there are only two known extant populations of the Miami tiger beetle, with this area being one, and with an excess of 90 percent of pine rockland habitat in south Florida being lost, the relative importance of these parcels to the species is high due to its long-term conservation and public interest.

#### Benefits of Exclusion

The Miami tiger beetle is a species included in the Coral Reef Commons HCP. As part of the HCP, the onsite preserve and offsite mitigation area were established to protect and conserve the species and its habitat. The conservation and protective measures established for these parcels as part of the HCP and section 10 permit are being fully implemented. We have determined that given the successful record of implementing the measures for the Miami tiger beetle on these parcels, we would, at this time, not seek any additional measures to protect the species or its habitat beyond those set forth in the HCP and accompanying permit, thus minimizing any additional regulatory benefit realized by their inclusion. Further, the conservation partnership with the Coral Reef Commons development advocate is well established and could be significantly harmed by the failure to acknowledge the conservation value of the HCP and that the conservation and protective

measures of the HCP and section 10 permit are being fully implemented. Additionally, failure to acknowledge and abide by these agreements would most likely send a chilling effect to other potential conservation partners, which could render conservation efforts in south Florida for the Miami tiger beetle and other listed and at-risk species more difficult and potentially harm species and sensitive habitats.

#### Benefits of Exclusion Outweigh the Benefits of Inclusion

We have found that on balance, the benefits of excluding the onsite preserve and offsite mitigation area associated with the Coral Reef Commons HCP outweigh the benefits of including the specific parcels in designated critical habitat for the Miami tiger beetle. We have determined that benefits from the preservation of the conservation partnership with Coral Reef Commons development and the continued ongoing conservation measures implemented on these parcels outweigh the potential additional regulatory benefits associated with their inclusion in critical habitat, which would most likely be in the form of regulatory oversight. Additionally, the acknowledgement of the productive cooperative partnership is important for not only this species and situation, but for other existing and future conservation efforts, and to not exclude these lands given that there is a signed HCP that covers the species, provides the necessary conservation measures, and is being fully implemented would have a detrimental effect on existing and future conservation partnerships. Further, while we find that the educational benefits associated with the parcels being in the final designation valuable, we have determined that the inclusion of these areas in the proposal has educated the public as to their importance to the species and will continue to do so. We anticipate minimal further benefit if they were to be included in this final designation. Therefore, we are excluding those specific lands associated with the Coral Reef Commons HCP that are in the onsite preserve and offsite mitigation area from this final designation of critical habitat for the Miami tiger beetle because we find that the benefit of excluding them from designated critical habitat outweighs the benefit of their inclusion.

#### Exclusion Will Not Result in Extinction of the Species

As discussed above, the conservation measures and provisions set forth in the Coral Reef Commons HCP to manage the onsite preserve and offsite mitigation

area for the Miami tiger beetle and pine rockland habitat are being fully and successfully implemented. There is a record that the project proponent is a cooperating partner in the conservation of the Miami tiger beetle. We have indicated that, at this time, we would not ask for any additional conservation measures for the species and its habitat and have determined that these areas are being fully protected for the Miami tiger beetle. As a result, we do not find that the exclusion of these specific areas from designated critical habitat is a threat to the viability of the Miami tiger beetle. Further, because the Miami tiger beetle is listed as an endangered species and these areas are occupied, if at any time the parcels are no longer being managed appropriately, the species continues to be protected by the

provisions of the Act and the permit for the HCP can be revisited. We conclude that the exclusion of these specific parcels from designated critical habitat will not result in the extinction of the Miami tiger beetle.

We have further determined that there are no additional HCPs or other management plans for the Miami tiger beetle within the critical habitat designation.

*Tribal Lands*

Several Executive Orders, Secretary’s Orders, and policies concern working with Tribes. These guidance documents generally confirm our trust responsibilities to Tribes, recognize that Tribes have sovereign authority to control Tribal lands, emphasize the importance of developing partnerships

with Tribal governments, and direct the Service to consult with Tribes on a government-to-government basis. However, we have not identified any Tribal lands associated with this final designation of critical habitat for the Miami tiger beetle.

*Summary of Exclusions*

As discussed above, based on the information provided by entities seeking exclusion, as well as any additional public comments we received, we evaluated whether certain lands in the proposed critical habitat were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. Table 4, below, shows the areas we are excluding from critical habitat designation for the Miami tiger beetle.

TABLE 4—AREAS EXCLUDED FROM CRITICAL HABITAT DESIGNATION BY CRITICAL HABITAT UNIT.

Unit	Specific area	Areas meeting the definition of critical habitat, in acres (hectares)	Areas excluded from critical habitat, in acres (hectares)
Unit 14—Richmond Pine Rocklands .....	Coral Reef Commons HCP onsite preserve and offsite mitigation area.	109.3 (44.2)	109.3 (44.2)

**Required Determinations**

*Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation’s regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 et seq.), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining

concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action

authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the critical habitat designation. There is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities will be directly regulated by this rulemaking, the Service certifies that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether this designation will result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that this critical habitat designation will not have a significant economic impact on a substantial number of small business entities. Therefore, a regulatory flexibility analysis is not required.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. In our economic analysis, we did not find that this critical habitat designation will significantly affect energy supplies, distribution, or use. We do not foresee any energy development projects, supply distribution, or use that may affect the critical habitat units for the Miami tiger beetle. Further, in our evaluation of potential economic impacts, we did not find that this critical habitat designation will significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following finding:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation,

statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or Tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat

shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because the government lands being designated as critical habitat are owned by the Federal Government, including the U.S. Coast Guard (DHS), USACE (DoD), NOAA, and FBP, or they are owned by State or local governments such as the State of Florida and Miami-Dade County. None of these government entities fit the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required.

*Takings—Executive Order 12630*

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Miami tiger beetle in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for this final designation of critical habitat for the Miami tiger beetle, and it concludes that this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

*Federalism—Executive Order 13132*

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation



of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, this final rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act will be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

#### *Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this final rule identifies the physical or biological features essential to the conservation of the species. The designated areas of

critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

#### *Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

#### *National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

#### *Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretary's Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for

healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We determined that there are no Tribal lands that were occupied by the Miami tiger beetle at the time of listing that contain the features essential for conservation of the species, and no Tribal lands unoccupied by the Miami tiger beetle that are essential for the conservation of the species. Therefore, we are not designating critical habitat for the Miami tiger beetle on Tribal lands. As a result, there are no Tribal lands affected by the designation of critical habitat for this species.

#### References Cited

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov>.

#### Authors

The primary authors of this rule are the staff members of the Florida Ecological Services Field Office.

#### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

#### Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

#### **PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

■ 1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.11, amend paragraph (h) by revising the entry for “Beetle, Miami tiger” in the List of Endangered and Threatened Wildlife under INSECTS to read as follows:

#### **§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*

(h) \* \* \*

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
INSECTS				
*	*	*	*	*
Beetle, Miami tiger .....	<i>Cicindelidia floridana</i> .....	Wherever found .....	E	81 FR 68985, 10/5/2016; 50 CFR 17.95(i). <sup>CH</sup>
*	*	*	*	*

■ 3. In § 17.95, amend paragraph (i) by adding an entry for “Miami Tiger Beetle (*Cicindelidia floridana*)” after the entry for “Helotes Mold Beetle (*Batrisodes venyivi*)” to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(i) *Insects.*

\* \* \* \* \*

Miami tiger beetle (*Cicindelidia floridana*)

(1) Critical habitat units are depicted for Miami-Dade County, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Miami tiger beetle consist of the following components:

(i) South Florida pine rockland habitat of at least 2.5 acres (1 hectare) in size that is maintained by natural or

prescribed fire or other disturbance regimes; and

(ii) Open sandy areas within or directly adjacent to the south Florida pine rockland habitat described in paragraph (2)(i) of this entry. These areas have little to no vegetation to allow for normal behavior and growth, such as thermoregulation, foraging, egg-laying, and larval development, and to facilitate habitat connectivity.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, other paved areas, and managed lawns) and the land on which they are located existing within the legal boundaries on June 22, 2023.

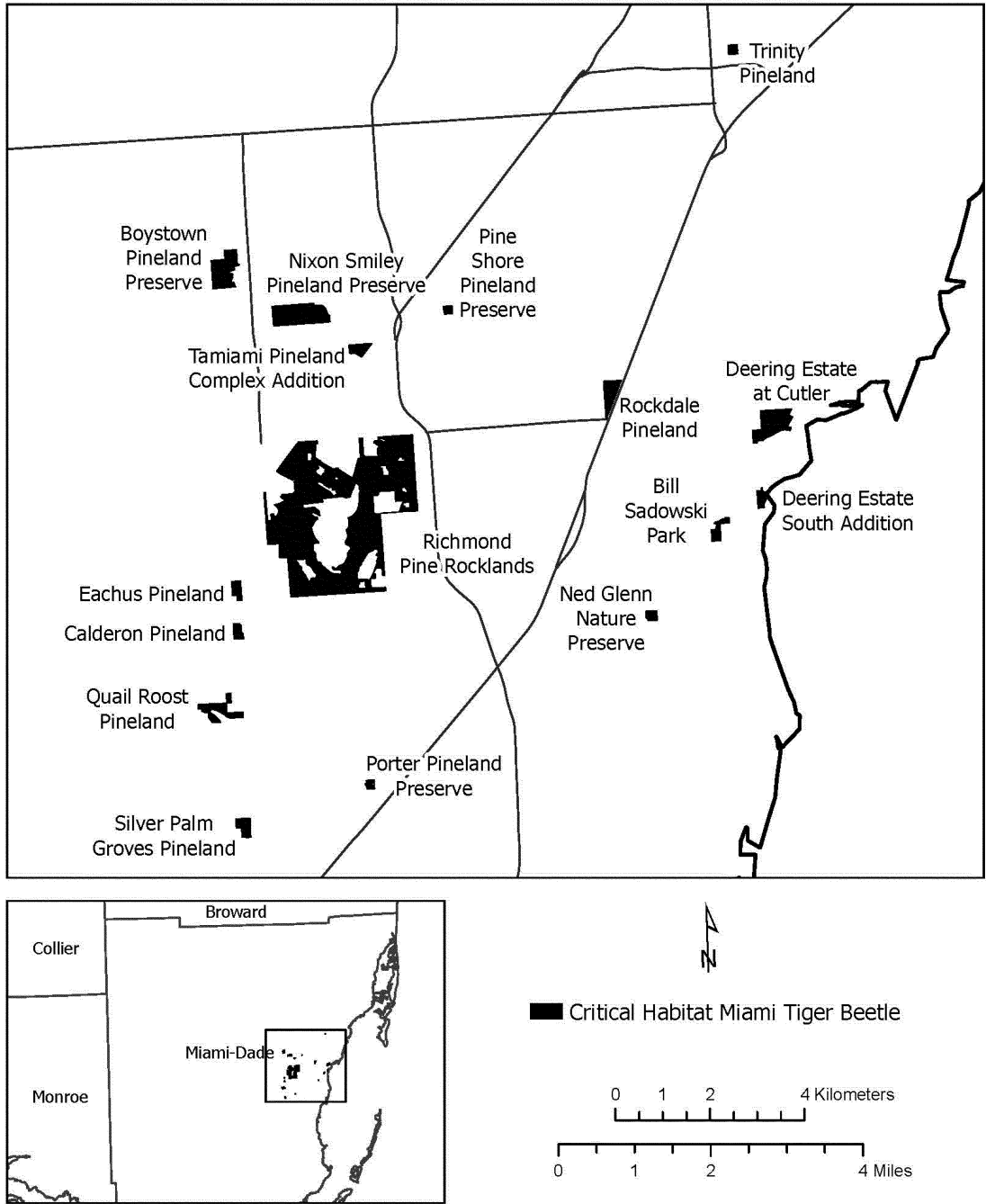
(4) Data layers defining map units were created using Esri ArcGIS mapping software. The projection used was Albers Conical Equal Area (Florida

Geographic Data Library), North American Datum of 1983 (NAD 83) High Accuracy Reference Network (HARN). The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2021-0053, at <https://www.fws.gov/office/florida-ecological-services/library>, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

**BILLING CODE 4333-15-P**

(5) Index map follows:  
Figure 1 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (5)

### Index of Critical Habitat Units for Miami Tiger Beetle (*Cicindelidia floridana*)



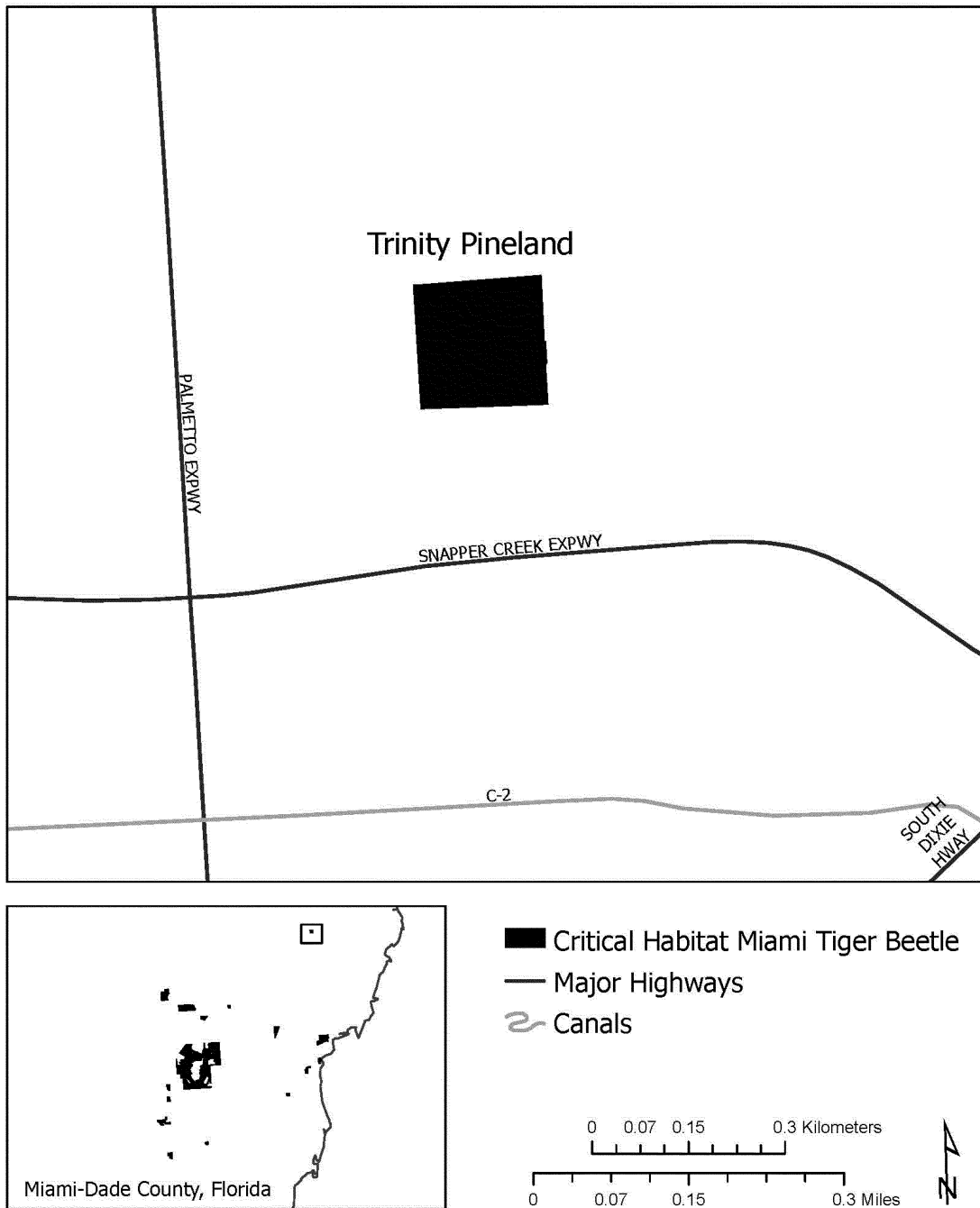
(6) Unit 1: Trinity Pineland, Miami-Dade County, Florida.

(i) Unit 1 consists of approximately 10 acres (ac) (4 hectares (ha)). The unit is

located between SW 72nd Street to the north, SW 80th Street to the south, South Dixie Highway to the east, and Palmetto Expressway to the west.

(ii) Map of Unit 1 follows: Figure 2 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (6)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 1: Trinity Pineland, Miami-Dade County, Florida

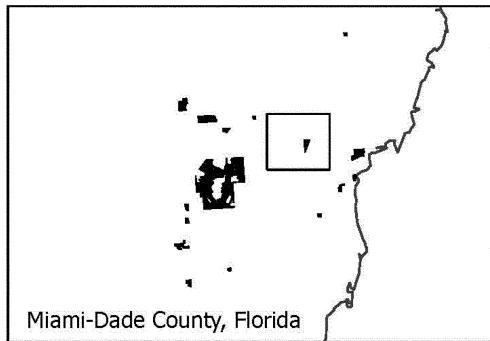
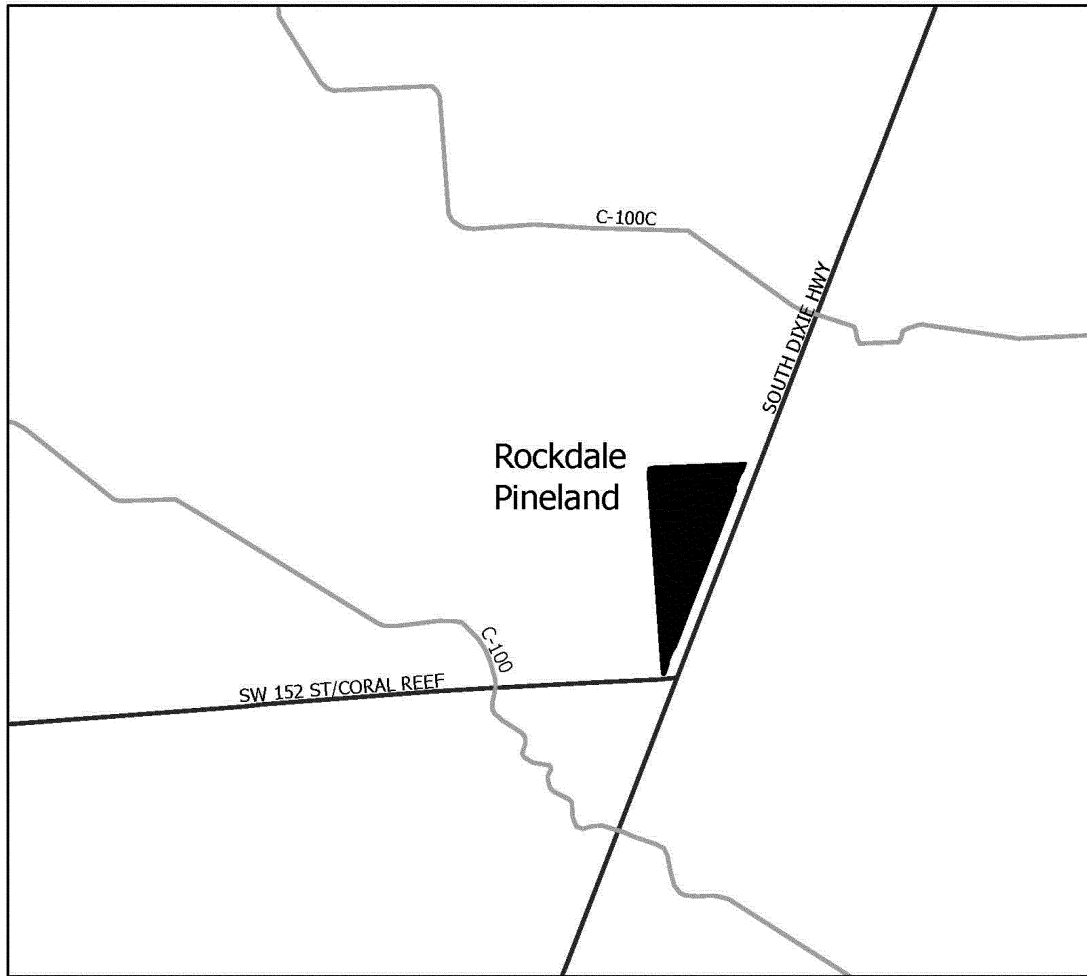


(7) Unit 2: Rockdale Pineland, Miami-Dade County, Florida.  
 (i) Unit 2 consists of approximately 39 ac (16 ha). The unit is located directly

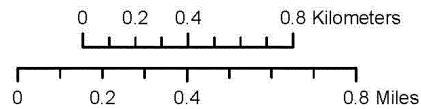
west of South Dixie Highway, between SW 144th Street to the north and SW 152nd Street to the south.  
 (ii) Map of Unit 2 follows:

Figure 3 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (7)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
Unit 2: Rockdale Pineland, Miami-Dade County, Florida



Critical Habitat Miami Tiger Beetle  
 — Major Highways  
 Canals

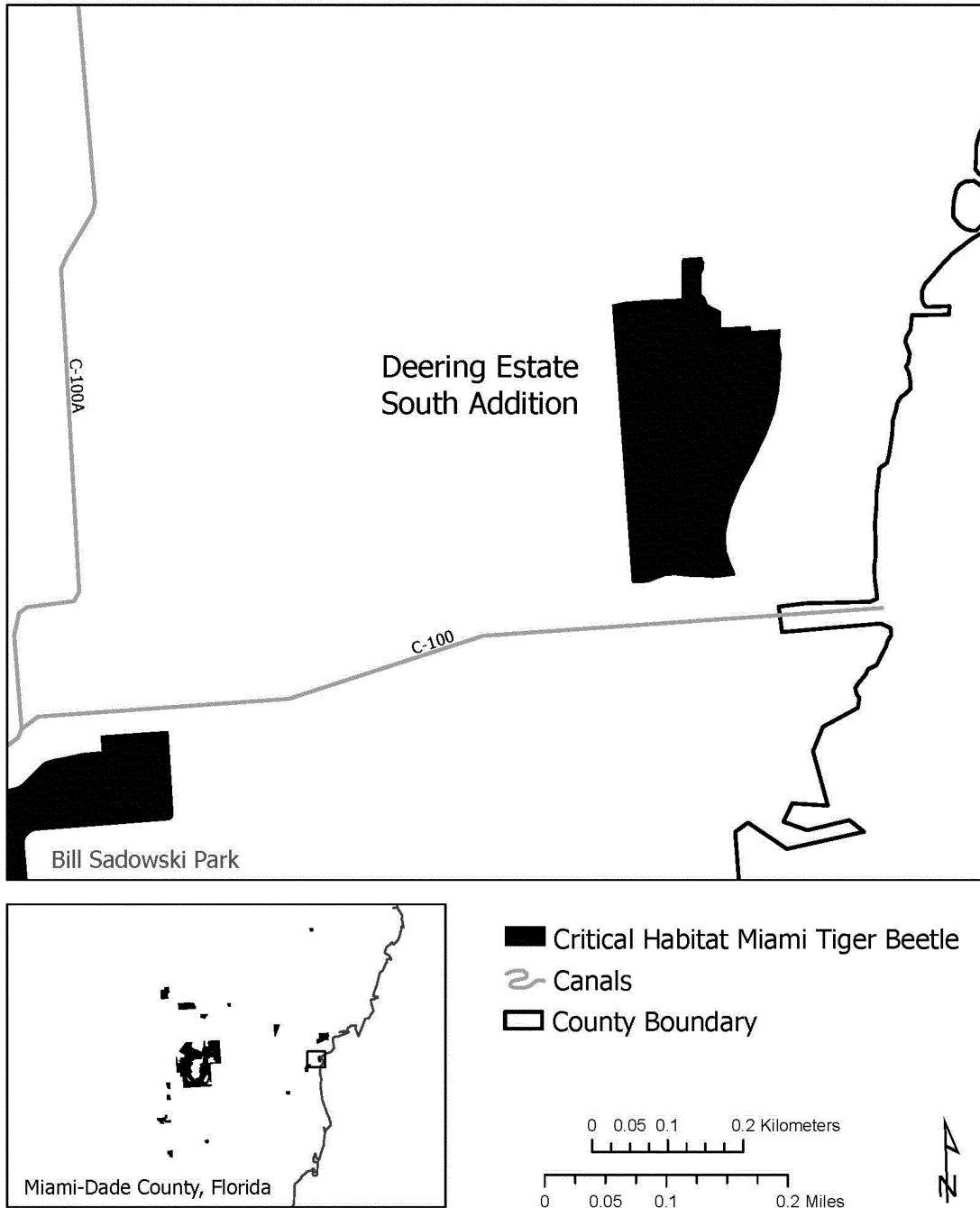


(8) Unit 3: Deering Estate South Addition, Miami-Dade County, Florida.  
 (i) Unit 3 consists of approximately 16 ac (6 ha). This unit is located just east

of Old Cutler Road and south of 168th Street.  
 (ii) Map of Unit 3 follows:

Figure 4 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (8)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 3: Deering Estate South Addition, Miami-Dade County, Florida

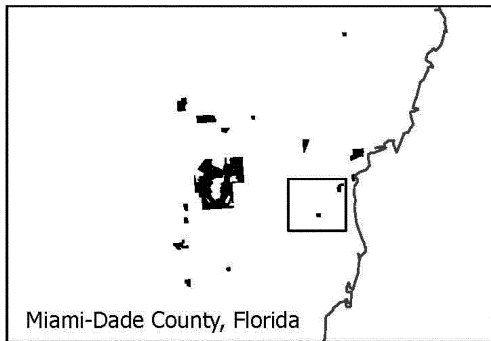
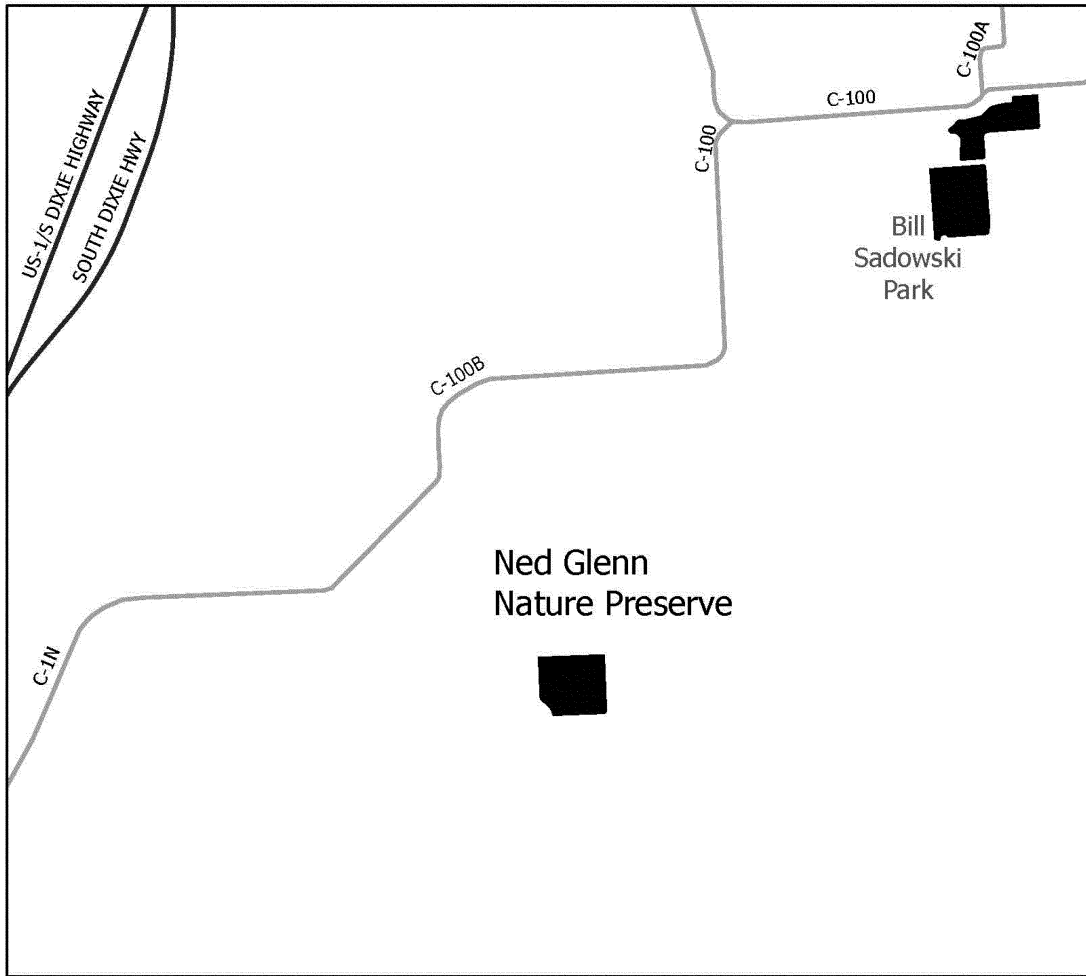


(9) Unit 4: Ned Glenn Nature Preserve, Miami-Dade County, Florida.  
 (i) Unit 4 consists of approximately 11 ac (5 ha). The unit is located directly

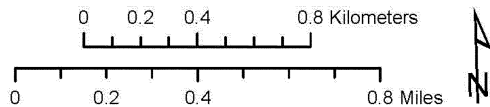
west of SW 87th Avenue, between 184th Street to the north, Old Cutler Road to the south, and Franjo Road to the west.  
 (ii) Map of Unit 4 follows:

Figure 5 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (9)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
Unit 4: Ned Glenn Nature Preserve, Miami-Dade County, Florida



Critical Habitat Miami Tiger Beetle  
 — Major Highways  
 Canals



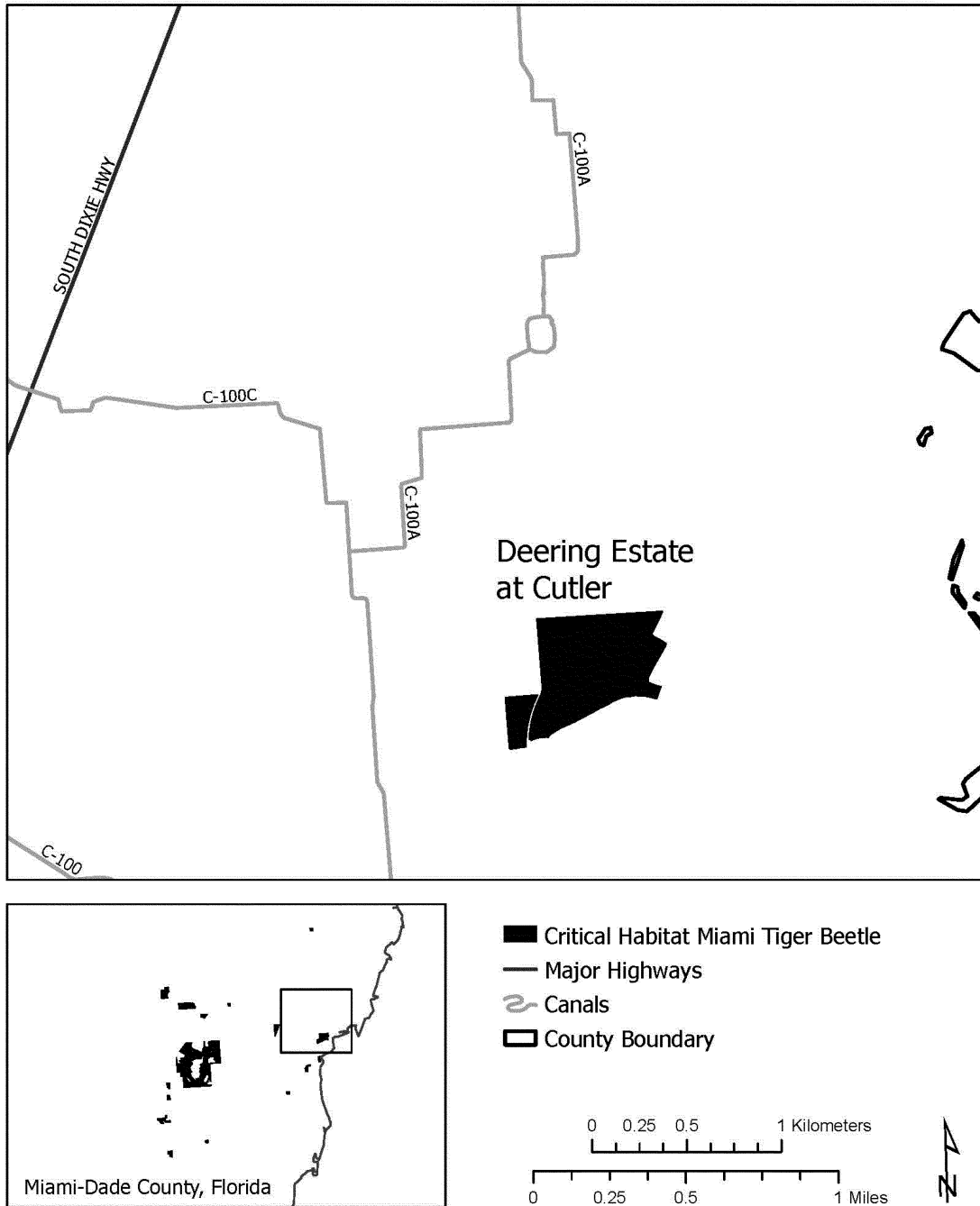
(10) Unit 5: Deering Estate at Cutler, Miami-Dade County, Florida.  
 (i) Unit 5 consists of approximately 89 ac (36 ha). The unit is located southeast

of SW 152nd Street and Old Cutler Road.  
 (ii) Map of Unit 5 follows:

Figure 6 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (10)(ii)



Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 5: Deering Estate at Cutler, Miami-Dade County, Florida



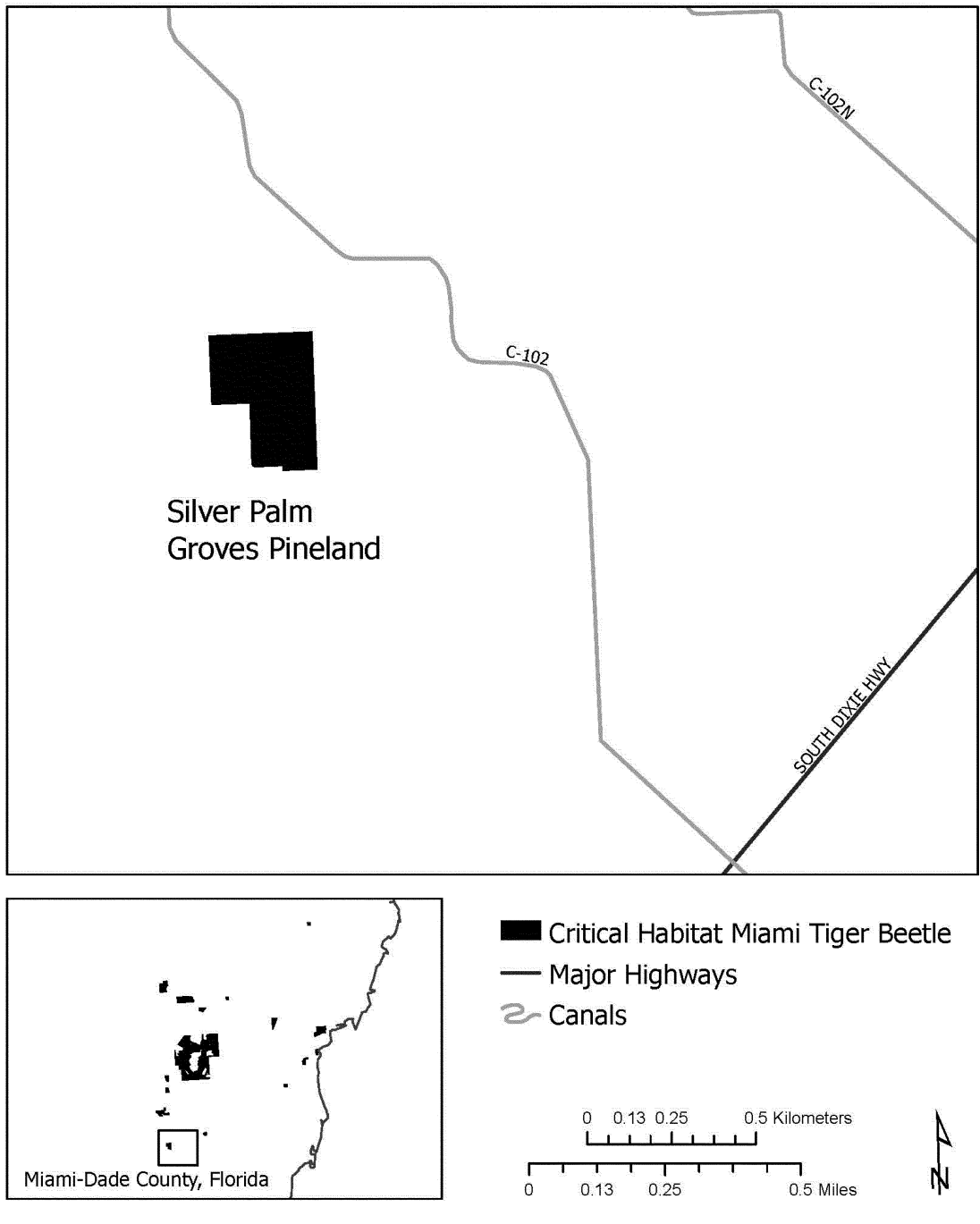
(11) Unit 6: Silver Palm Groves  
 Pineland, Miami-Dade County, Florida.

(i) Unit 6 consists of approximately 25  
 ac (10 ha). This unit is located just north

of SW 232nd Street, between SW 216th  
 Street to the north, South Dixie  
 Highway to the east, and SW 147th  
 Avenue to the west.

(ii) Map of Unit 6 follows:  
 Figure 7 to Miami Tiger Beetle  
 (*Cicindelidia floridana*) paragraph  
 (11)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 6: Silver Palm Groves Pineland, Miami-Dade County, Florida



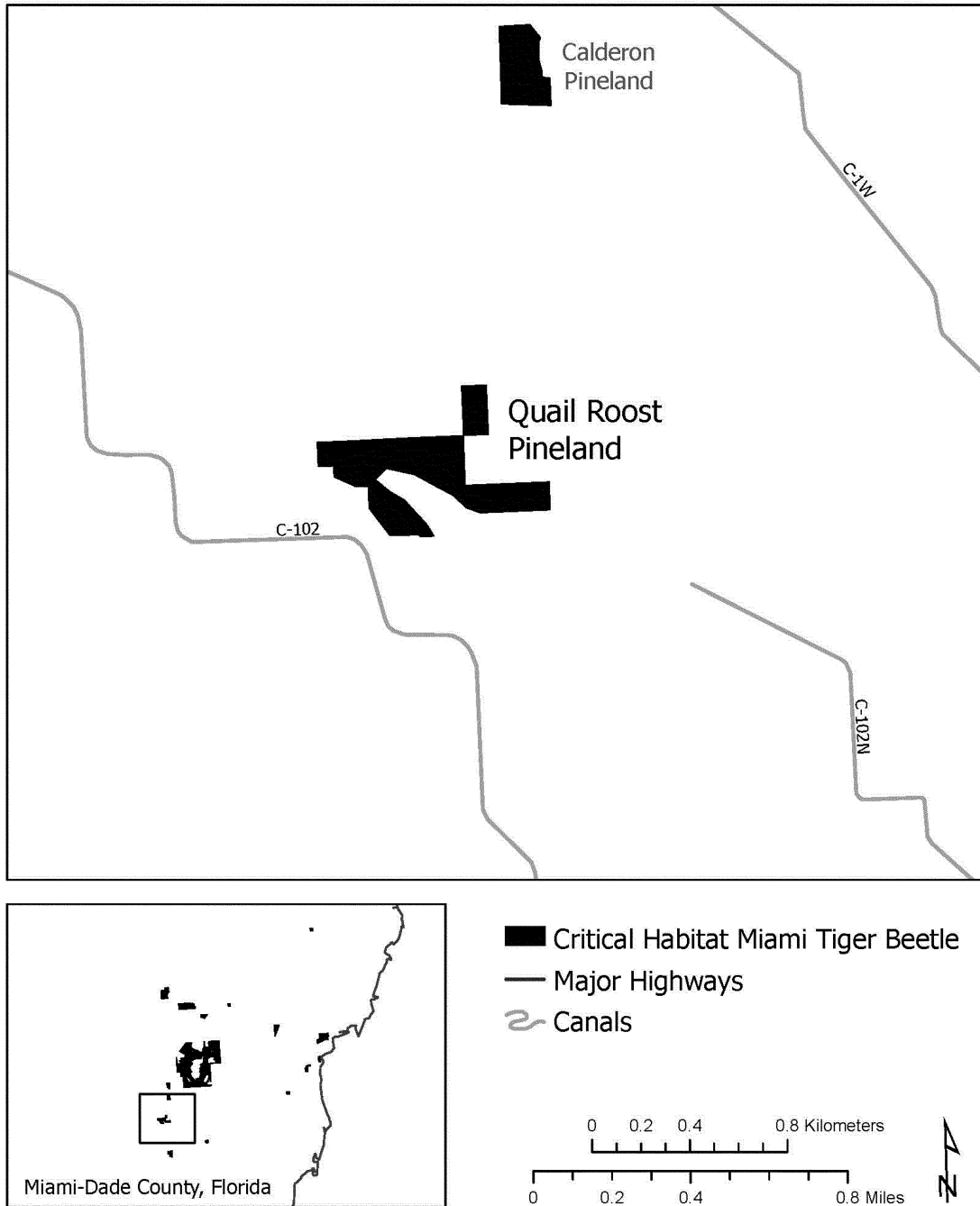
(12) Unit 7: Quail Roost Pineland, Miami-Dade County, Florida.

(i) Unit 7 consists of approximately 48 ac (19 ha). This unit is located between

SW 200th Street to the north, SW 127th Avenue to the east, SW 216th Street to the south, and SW 147th Avenue to the west.

(ii) Map of Unit 7 follows: Figure 8 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (12)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 7: Quail Roost Pineland, Miami-Dade County, Florida



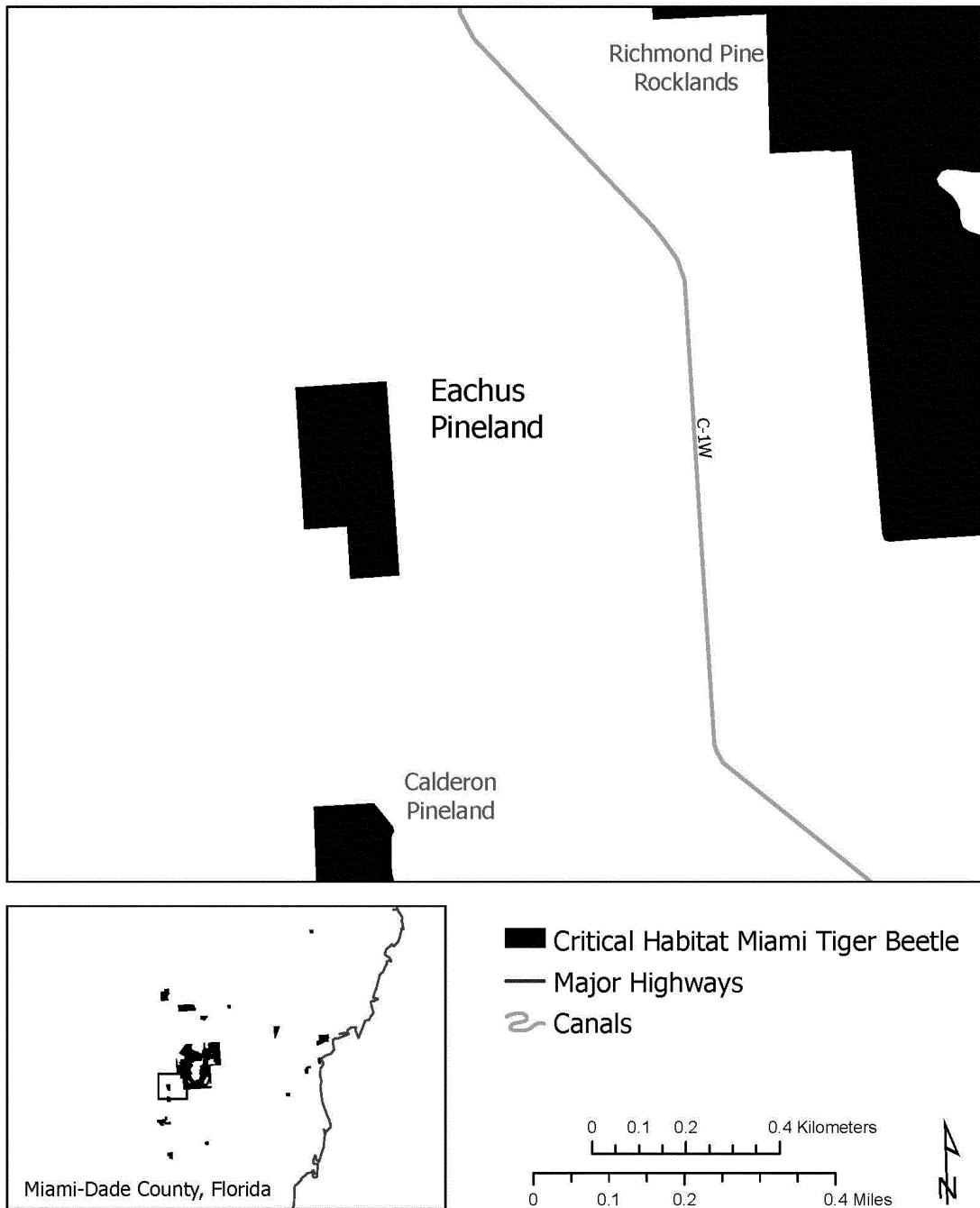
(13) Unit 8: Eachus Pineland, Miami-Dade County, Florida.

(i) Unit 8 consists of approximately 17 ac (7 ha). This unit is located between

SW 180th Street to the north, SW 137th Avenue to the east, SW 184th Street to the south, and SW 142nd Avenue to the east.

(ii) Map of Unit 8 follows: Figure 9 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (13)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 8: Eachus Pineland, Miami-Dade County, Florida



(14) Unit 9: Bill Sadowski Park, Miami-Dade County, Florida.

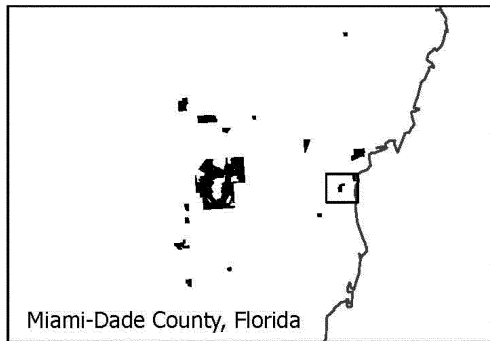
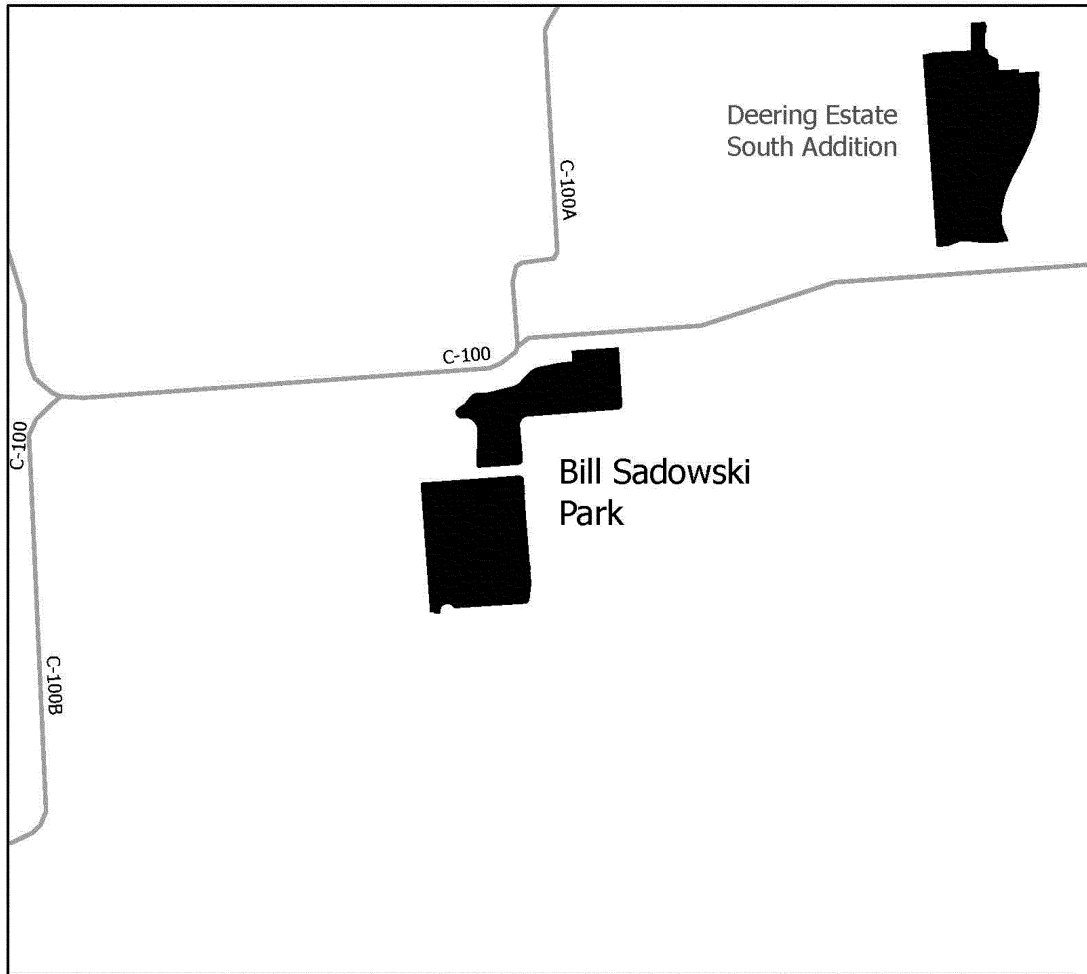
(i) Unit 9 consists of approximately 20 ac (8 ha). This unit is located south of

168th Street, west of Old Cutler Road, north of SW 184th Street, and east of SW 87th Avenue.

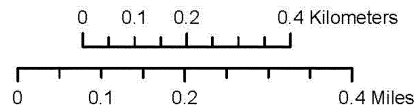
(ii) Map of Unit 9 follows:

Figure 10 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (14)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 9: Bill Sadowski Park, Miami-Dade County, Florida



- Critical Habitat Miami Tiger Beetle
- Major Highways
- ~ Canals
- County Boundary



(15) Unit 10: Tamiami Pineland Complex Addition, Miami-Dade County, Florida.

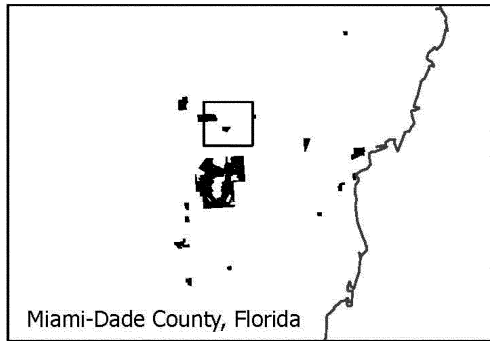
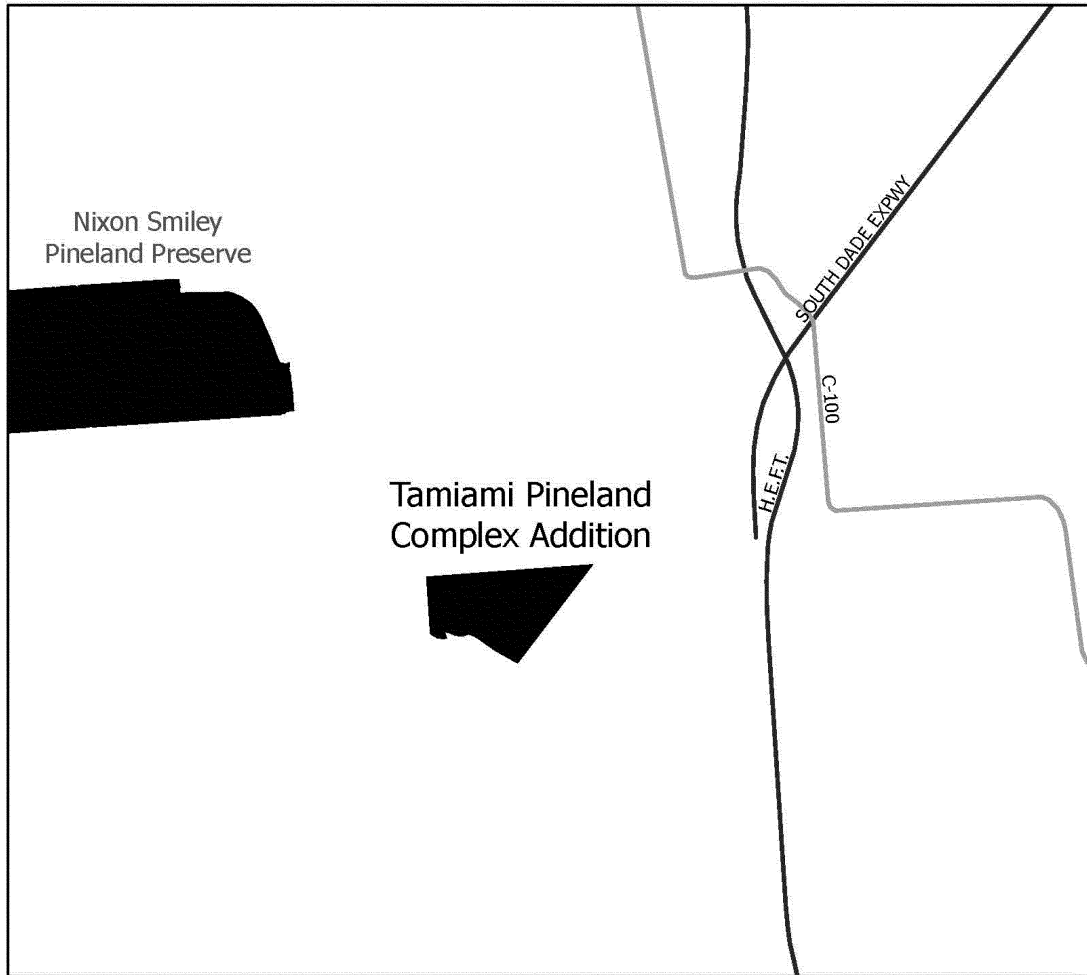
(i) Unit 10 consists of approximately 21 ac (8 ha). This unit is located south

of 128th Street, west of Florida's Turnpike, north of SW 136th Street, and east of SW 127th Avenue.

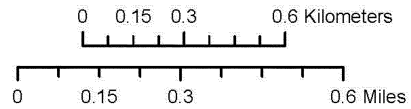
(ii) Map of Unit 10 follows:

Figure 11 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (15)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 10: Tamiami Pineland Complex Addition, Miami-Dade County, Florida



Critical Habitat Miami Tiger Beetle  
 Major Highways  
 Canals

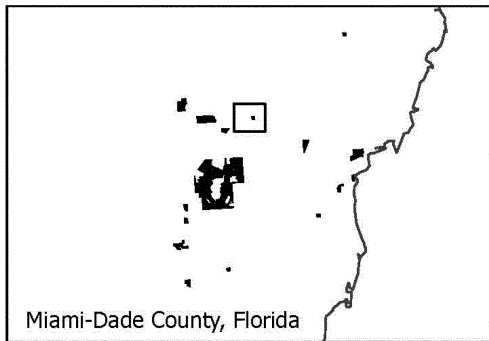
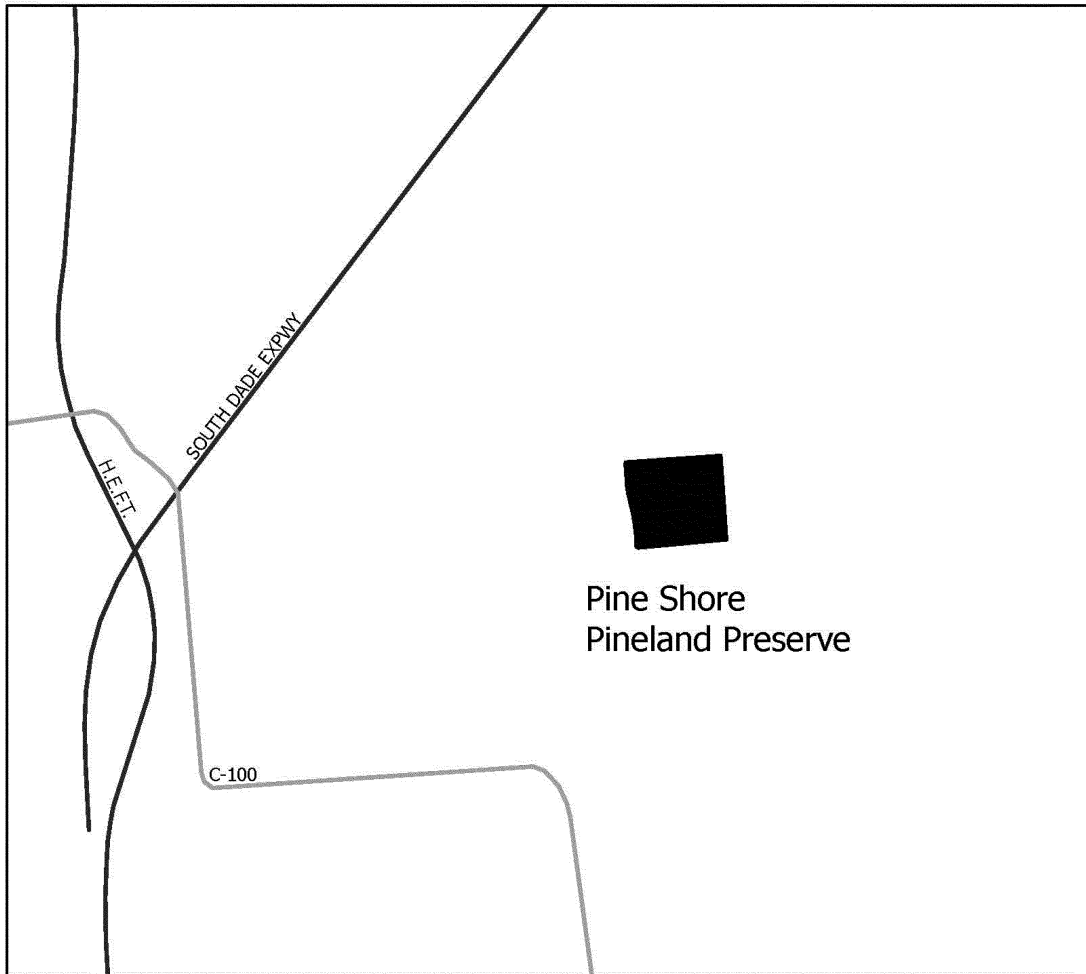


(16) Unit 11: Pine Shore Pineland Preserve, Miami-Dade County, Florida.  
 (i) Unit 11 consists of approximately 8 ac (3 ha). This unit is located

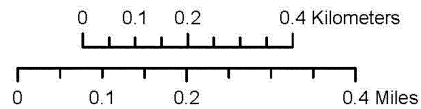
southwest of the Don Shula Expressway, west of SW 107th Avenue, and north of SW 128th Street.  
 (ii) Map of Unit 11 follows:

Figure 12 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (16)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 11: Pine Shore Pineland Preserve, Miami-Dade County, Florida



Critical Habitat Miami Tiger Beetle  
 Major Highways  
 Canals



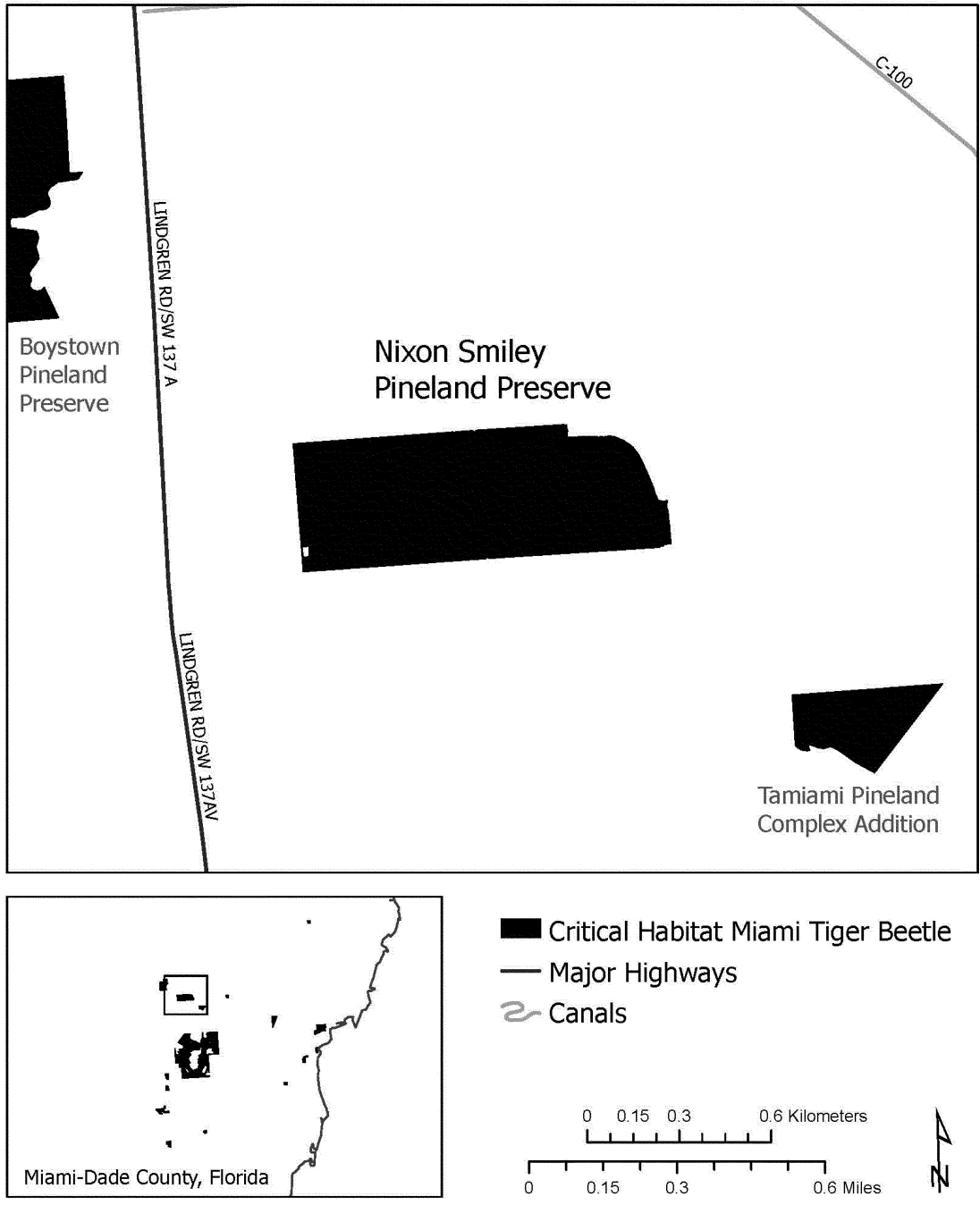
(17) Unit 12: Nixon Smiley Pineland Preserve, Miami-Dade County, Florida.  
 (i) Unit 12 consists of approximately 117 ac (47 ha). This unit is located

between SW 120th Street to the north, SW 127th Avenue to the east, SW 128th Street to the south, and SW 137th Avenue to the west.

(ii) Map of Unit 12 follows: Figure 13 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (17)(ii)



Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 12: Nixon Smiley Pineland Preserve, Miami-Dade County, Florida

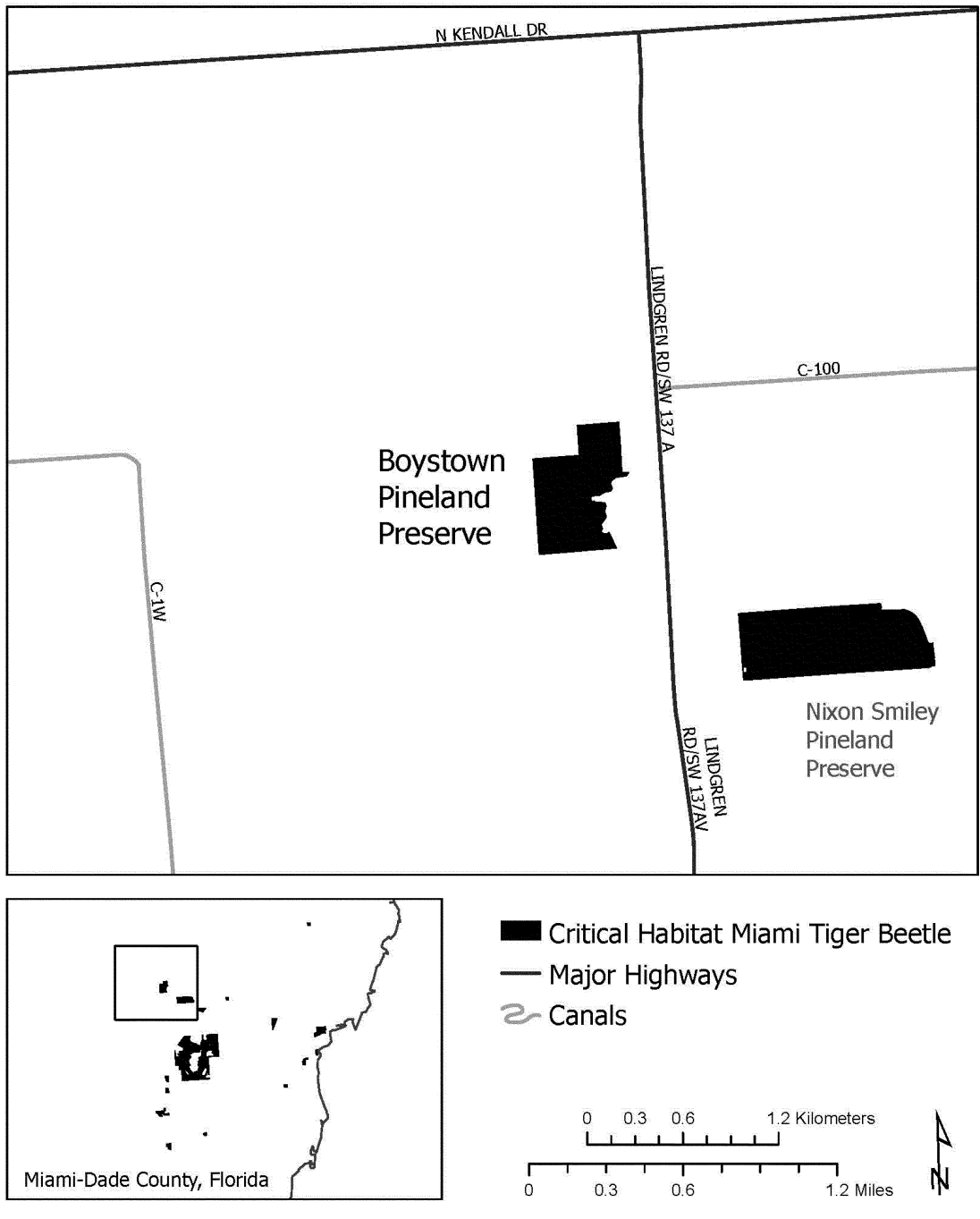


(18) Unit 13: Boystown Pineland Preserve, Miami-Dade County, Florida.  
 (i) Unit 13 consists of approximately 81 ac (33 ha). This unit is between SW

104th Street to the north, SW 137th Avenue to the east, SW 12th Street to the south, and SW 147th Avenue to the west.

(ii) Map of Unit 13 follows: Figure 14 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (18)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 13: Boystown Pineland Preserve, Miami-Dade County, Florida



(19) Unit 14: Richmond Pine Rocklands, Miami-Dade County, Florida.

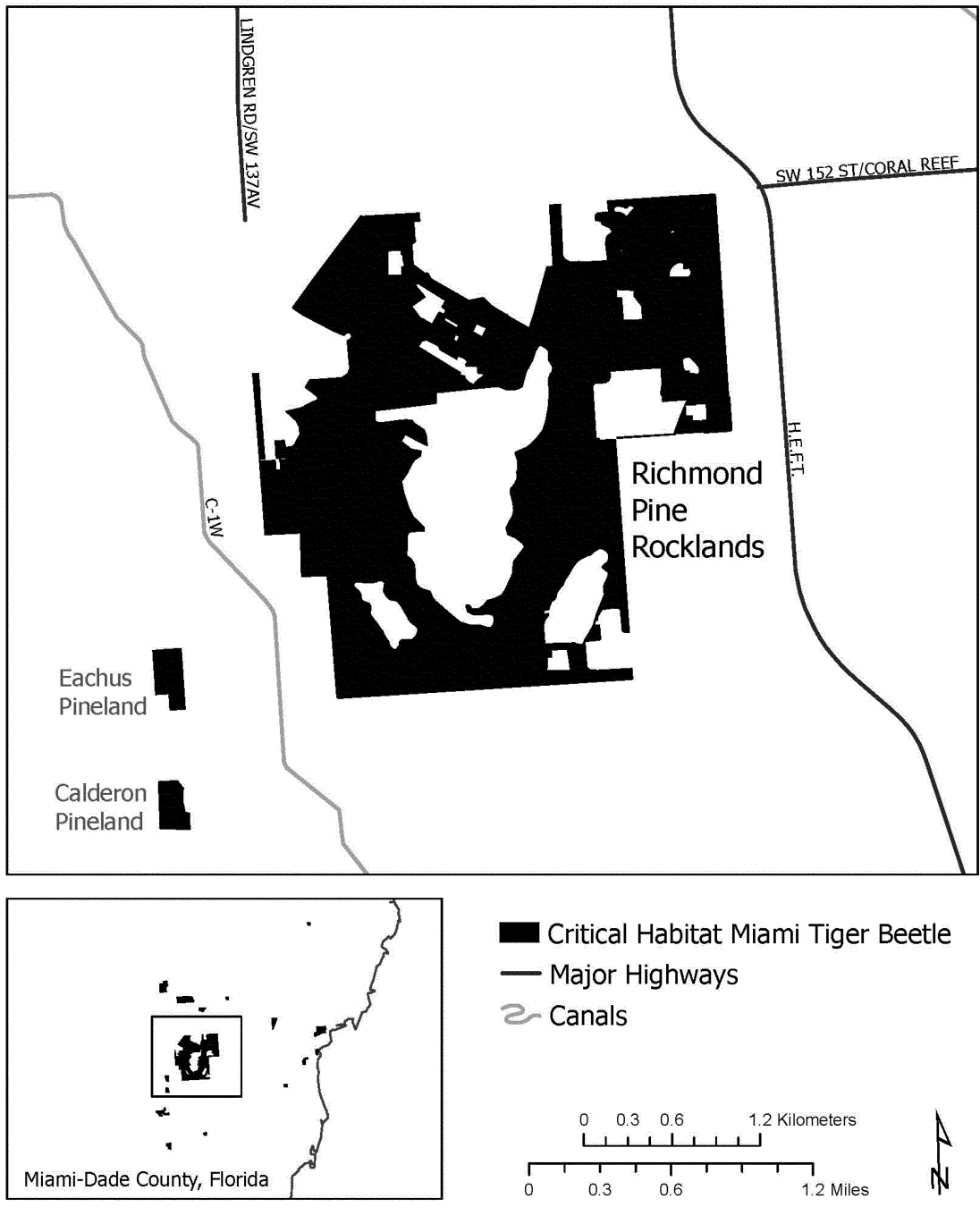
(i) Unit 14 consists of approximately 1,347 ac (545 ha). This unit is located

between SW 152nd Street to the north, SW 117th Avenue to the east, SW 185th Street to the south, and SW 137th Avenue to the west.

(ii) Map of Unit 14 follows:

Figure 15 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (19)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 14: Richmond Pine Rocklands, Miami-Dade County, Florida



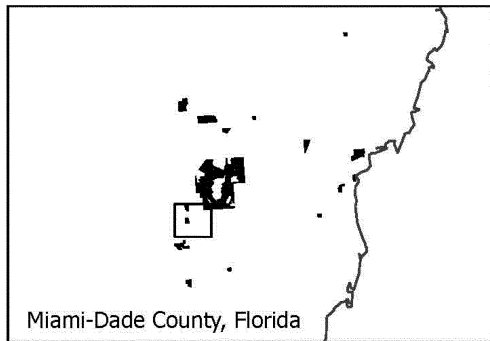
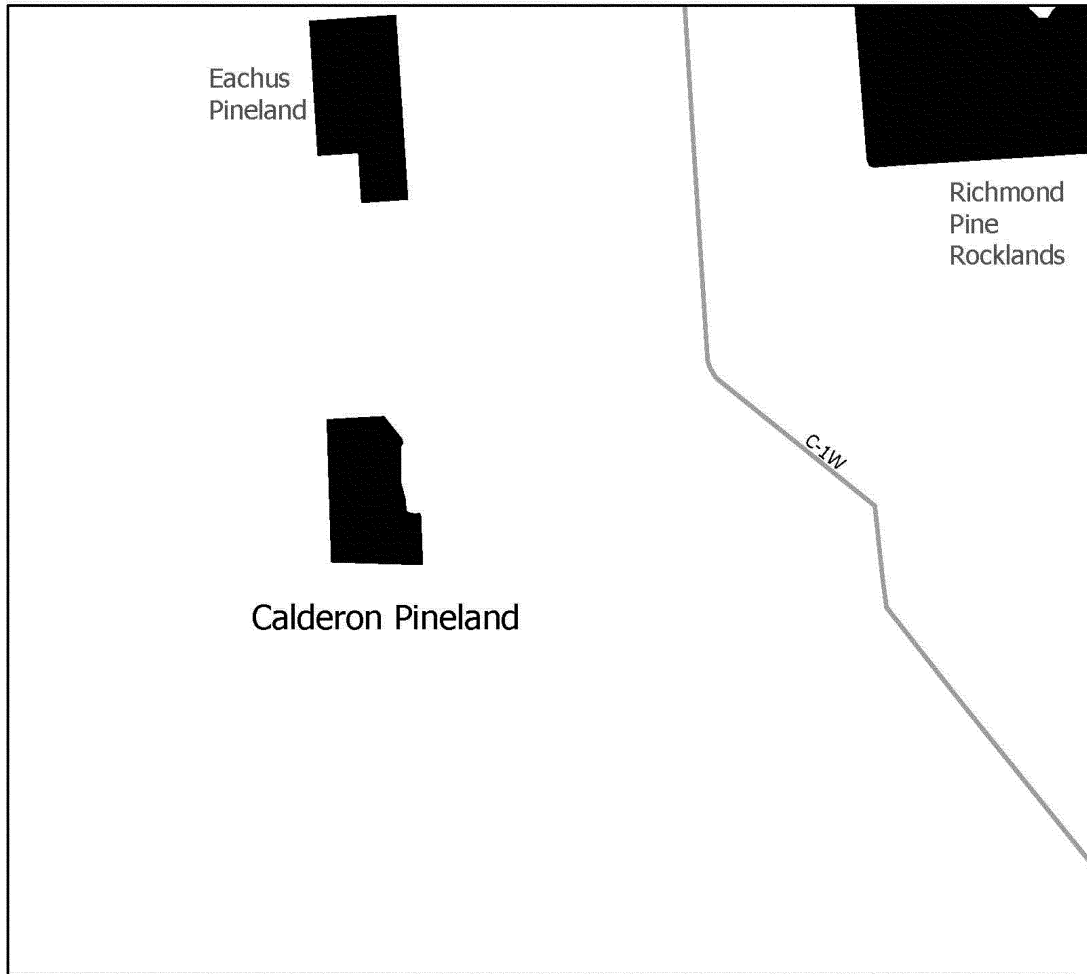
(20) Unit 15: Calderon Pineland, Miami-Dade County, Florida.

(i) Unit 15 consists of approximately 14 ac (6 ha). This unit is located

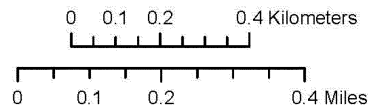
between SW 184th Street to the south, SW 137th Avenue to the east, SW 200th Street to the south, and SW 147th Avenue to the west.

(ii) Map of Unit 15 follows: Figure 16 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (20)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
 Unit 15: Calderon Pineland, Miami-Dade County, Florida



Critical Habitat Miami Tiger Beetle  
 Major Highways  
 Canals



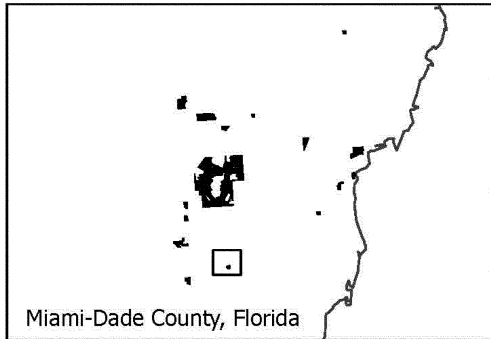
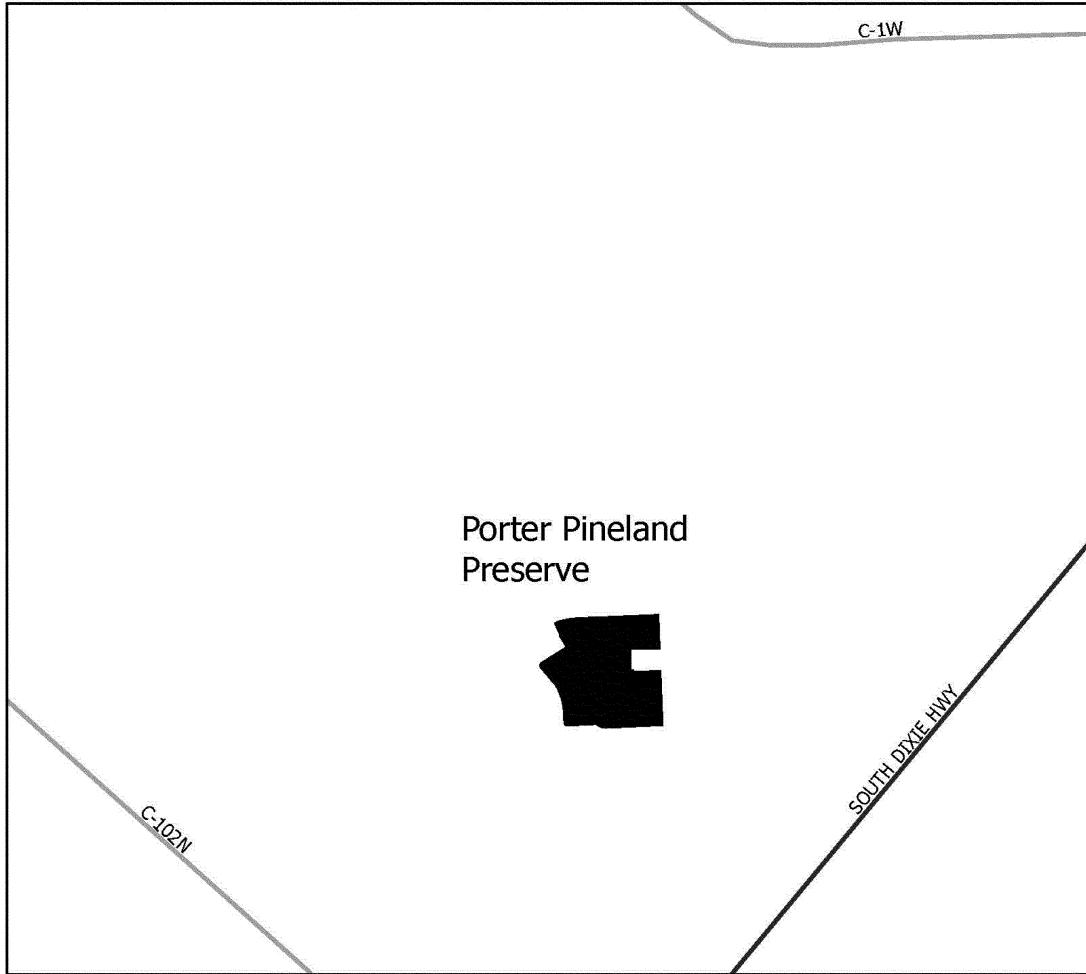
(21) Unit 16: Porter Pineland Preserve, Miami-Dade County, Florida.

(i) Unit 16 consists of approximately 7 ac (3 ha). This unit is located to the

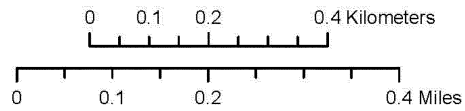
south of SW 216th Street, to the west of South Dixie Highway, to the north of SW 232nd Street, and to the east of SW 147th Avenue.

(ii) Map of Unit 16 follows: Figure 17 to Miami Tiger Beetle (*Cicindelidia floridana*) paragraph (21)(ii)

Critical Habitat Unit for Miami Tiger Beetle (*Cicindelidia floridana*)  
Unit 16: Porter Pineland Preserve, Miami-Dade County, Florida



- Critical Habitat Miami Tiger Beetle
- Major Highways
- Canals



\* \* \* \* \*

**Martha Williams,**  
*Director, U.S. Fish and Wildlife Service.*  
[FR Doc. 2023-10077 Filed 5-22-23; 8:45 am]  
BILLING CODE 4333-15-C



# FEDERAL REGISTER

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Part III

## Environmental Protection Agency

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40 CFR Part 60

New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule; Proposed Rule

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 60**

[EPA-HQ-OAR-2023-0072; FRL-8536-02-OAR]

RIN 2060-AV09

**New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

**SUMMARY:** In this document, the Environmental Protection Agency (EPA) is proposing five separate actions under section 111 of the Clean Air Act (CAA) addressing greenhouse gas (GHG) emissions from fossil fuel-fired electric generating units (EGUs). The EPA is proposing revised new source performance standards (NSPS), first for GHG emissions from new fossil fuel-fired stationary combustion turbine EGUs and second for GHG emissions from fossil fuel-fired steam generating units that undertake a large modification, based upon the 8-year review required by the CAA. Third, the EPA is proposing emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs, which include both coal-fired and oil/gas-fired steam generating EGUs. Fourth, the EPA is proposing emission guidelines for GHG emissions from the largest, most frequently operated existing stationary combustion turbines and is soliciting comment on approaches for emission guidelines for GHG emissions from the remainder of the existing combustion turbine category. Finally, the EPA is proposing to repeal the Affordable Clean Energy (ACE) Rule.

**DATES:** *Comments.* Comments must be received on or before July 24, 2023. Comments on the information collection provisions submitted to the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) are best assured of consideration by OMB if OMB receives a copy of your comments on or before June 22, 2023.

*Public Hearing.* The EPA will hold a virtual public hearing on June 13, 2023 and June 14, 2023. See **SUPPLEMENTARY INFORMATION** for information on registering for a public hearing.

**ADDRESSES:** You may send comments, identified by Docket ID No. EPA-HQ-OAR-2023-0072, by any of the following methods:

- *Federal eRulemaking Portal:* <https://www.regulations.gov> (our preferred method). Follow the online instructions for submitting comments.
- *Email:* [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov). Include Docket ID No. EPA-HQ-OAR-2023-0072 in the subject line of the message.
- *Fax:* (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2023-0072.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2023-0072, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.
- *Hand/Courier Delivery:* EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m.–4:30 p.m., Monday–Friday (except Federal holidays).

*Instructions:* All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to <https://www.regulations.gov>, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

**FOR FURTHER INFORMATION CONTACT:** For questions about these proposed actions, contact Mr. Christian Fellner, Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-4003; and email address: [fellner.christian@epa.gov](mailto:fellner.christian@epa.gov) or Ms. Lisa Thompson, Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-9775; and email address: [thompson.lisa@epa.gov](mailto:thompson.lisa@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*Participation in virtual public hearing.* The public hearing will be held via virtual platform on June 13, 2023 and June 14, 2023 and will convene at 11:00 a.m. Eastern Time (ET) and conclude at 7:00 p.m. ET each day. If the EPA receives a high volume of registrations for the public hearing, the EPA may continue the public hearing on June 15, 2023. On each hearing day, the

EPA may close a session 15 minutes after the last pre-registered speaker has testified if there are no additional speakers. The EPA will announce further details at <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>.

The EPA will begin pre-registering speakers for the hearing no later than 1 business day following the publication of this document in the **Federal Register**. The EPA will accept registrations on an individual basis. To register to speak at the virtual hearing, please use the online registration form available at <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power> or contact the public hearing team at (888) 372-8699 or by email at [SPPDpublichearing@epa.gov](mailto:SPPDpublichearing@epa.gov). The last day to pre-register to speak at the hearing will be June 6, 2023. Prior to the hearing, the EPA will post a general agenda that will list pre-registered speakers in approximate order at: <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>.

The EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearings to run either ahead of schedule or behind schedule.

Each commenter will have 4 minutes to provide oral testimony. The EPA encourages commenters to provide the EPA with a copy of their oral testimony by submitting the text of your oral testimony as written comments to the rulemaking docket.

The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral testimony and supporting information presented at the public hearing.

Please note that any updates made to any aspect of the hearing will be posted online at <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>. While the EPA expects the hearing to go forward as described in this section, please monitor our website or contact the public hearing team at (888) 372-8699 or by email at [SPPDpublichearing@epa.gov](mailto:SPPDpublichearing@epa.gov) to determine if there are any updates. The EPA does not intend to publish a document in the **Federal Register** announcing updates.

If you require the services of an interpreter or a special accommodation such as audio description, please pre-register for the hearing with the public hearing team and describe your needs by May 30, 2023. The EPA may not be able to arrange accommodations without advanced notice.

**Docket.** The EPA has established a docket for these rulemakings under Docket ID No. EPA-HQ-OAR-2023-0072. All documents in the docket are listed in the *Regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy.

**Written Comments.** Direct your comments to Docket ID No. EPA-HQ-OAR-2023-0072 at <https://www.regulations.gov> (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to the EPA's docket at <https://www.regulations.gov> any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. This type of information should be submitted as discussed in the *Submitting CBI* section of this document.

Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the Web, cloud, or other file sharing system). Please visit <https://www.epa.gov/dockets/commenting-epa-dockets> for additional submission methods; the full EPA public comment policy; information about CBI or multimedia submissions; and general guidance on making effective comments.

The <https://www.regulations.gov> website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov>, your email address will be automatically captured and included as part of the comment

that is placed in the public docket and made available on the internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and should be free of any defects or viruses.

**Submitting CBI.** Do not submit information containing CBI to the EPA through <https://www.regulations.gov>. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, note the docket ID, mark the outside of the digital storage media as CBI, and identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in *Written Comments* section of this document. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI and note the docket ID. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2.

Our preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services (e.g., Dropbox, OneDrive, Google Drive). Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov) and, as described above, should include clear CBI markings and note the docket ID. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov) to request a file transfer link. If sending CBI information through the postal service, please send it to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency,

Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2023-0072. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

**Preamble acronyms and abbreviations.** Throughout this document the use of "we," "us," or "our" is intended to refer to the EPA. The EPA uses multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACE Affordable Clean Energy rule  
 BACT best available control technology  
 BSER best system of emissions reduction  
 Btu British thermal unit  
 CAA Clean Air Act  
 CBI Confidential Business Information  
 CCS carbon capture and sequestration/  
 storage  
 CCUS carbon capture, utilization, and  
 sequestration/storage  
 CFR Code of Federal Regulations  
 CHP combined heat and power  
 CO<sub>2</sub> carbon dioxide  
 CO<sub>2</sub>e carbon dioxide equivalent  
 CPP Clean Power Plan  
 CSAPR Cross-State Air Pollution Rule  
 DOE Department of Energy  
 DOI Department of the Interior  
 DOT Department of Transportation  
 EGU electric generating unit  
 EIA Energy Information Administration  
 EJ environmental justice  
 E.O. Executive Order  
 EOR enhanced oil recovery  
 EPA Environmental Protection Agency  
 FEED front-end engineering and design  
 FGD flue gas desulfurization  
 FR Federal Register  
 FrEDI Framework for Evaluating Damages  
 and Impacts  
 GHG greenhouse gas  
 GHGRP Greenhouse Gas Reporting Program  
 GW gigawatt  
 HHV higher heating value  
 HRSG heat recovery steam generator  
 IBR incorporate by reference  
 ICR information collection request  
 IGCC integrated gasification combined  
 cycle  
 IJJA Infrastructure Investment and Jobs Act  
 IPCC Intergovernmental Panel on Climate  
 Change  
 IRC Internal Revenue Code  
 IRP integrated resource plan  
 kg kilogram  
 kWh kilowatt-hour  
 LCOE levelized cost of electricity  
 LHV lower heating value  
 LNG liquefied natural gas  
 MMBtu/hr million British thermal units per  
 hour  
 MMst million short tons  
 MMT CO<sub>2</sub>e million metric tons of carbon  
 dioxide equivalent  
 MW megawatt  
 MWh megawatt-hour



NAAQS National Ambient Air Quality Standards  
 NAICS North American Industry Classification System  
 NCA4 2017–2018 Fourth National Climate Assessment  
 NETL National Energy Technology Laboratory  
 NGCC natural gas combined cycle  
 NO<sub>x</sub> nitrogen oxides  
 NREL National Renewable Energy Laboratory  
 NSPS new source performance standards  
 NSR New Source Review  
 OMB Office of Management and Budget  
 PM particulate matter  
 PSD Prevention of Significant Deterioration  
 PUC public utilities commission  
 RIA regulatory impact analysis  
 RPS renewable portfolio standard  
 RTO Regional Transmission Organization  
 SCR selective catalytic reduction  
 SIP State Implementation Plan  
 U.S. United States  
 U.S.C. United States Code

*Organization of this document.* The information in this preamble is organized as follows:

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  - B. Overview of the Proposals
  - C. Recent Developments in Emissions Controls and the Electric Power Sector
  - D. How the EPA Considered Environmental Justice in the Development of These Proposals
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## Executive Summary

In 2009, the EPA concluded that GHG emissions endanger our nation's public health and welfare.<sup>1</sup> Since that time, the evidence of the harms posed by GHG emissions has only grown and Americans experience the destructive and worsening effects of climate change every day. Fossil fuel-fired EGUs are the nation's largest stationary source of GHG emissions, representing 25 percent of the United States' total GHG emissions in 2020. At the same time, a range of cost-effective technologies and approaches to reduce GHG emissions from these sources are available to the power sector, and multiple projects are in various stages of operation and development—including carbon capture and sequestration/storage (CCS) and co-firing with lower-GHG fuels. Congress has also acted to provide funding and other incentives to encourage the deployment of these technologies to

<sup>1</sup> 74 FR 66496 (December 15, 2009).

achieve reductions in GHG emissions from the power sector.

In this document, the EPA is proposing several actions under section 111 of the Clean Air Act (CAA) to reduce the significant quantity of GHG emissions from new and existing fossil fuel-fired EGUs by establishing new source performance standards (NSPS) and emission guidelines that are based on available and cost-effective technologies that directly reduce GHG emissions from these sources. Consistent with the statutory command of section 111, the proposed NSPS and emission guidelines reflect the application of the best system of emission reduction (BSER) that, taking into account costs, energy requirements, and other statutory factors, is adequately demonstrated.

Specifically, the EPA is proposing to update and establish more protective NSPS for GHG emissions from new and reconstructed fossil fuel-fired stationary combustion turbine EGUs that are based on highly efficient generating practices, hydrogen co-firing, and CCS. The EPA is also proposing to establish new emission guidelines for existing fossil fuel-fired steam generating EGUs that reflect the application of CCS and the availability of natural gas co-firing. The EPA is simultaneously proposing to repeal the Affordable Clean Energy (ACE) rule because the emission guidelines established in ACE do not reflect the BSER for steam generating EGUs and are inconsistent with section 111 of the CAA in other respects. To address GHG emissions from existing fossil fuel-fired stationary combustion turbines, the EPA is proposing emission guidelines for large and frequently used existing stationary combustion turbines. Further, the EPA is soliciting comment on how the Agency should approach its legal obligation to establish emission guidelines for the remaining existing fossil fuel-fired combustion turbines not covered by this proposal, including smaller frequently used, and less frequently used, combustion turbines.

Each of the NSPS and emission guidelines proposed here would ensure that EGUs reduce their GHG emissions in a manner that is cost-effective and improves the emissions performance of the sources, consistent with the applicable CAA requirements and caselaw. These proposed standards and emission guidelines, if finalized, would significantly decrease GHG emissions from fossil fuel-fired EGUs and the associated harms to human health and welfare. Further, the EPA has designed these proposed standards and emission guidelines in a way that is compatible

with the nation's overall need for a reliable supply of affordable electricity.

#### A. Climate Change and the Power Sector

These proposals focus on reducing the emissions of GHGs from the power sector. The increasing concentrations of GHGs in the atmosphere are, and have been, warming the planet, resulting in serious and life-threatening environmental and human health impacts. The increased concentrations of GHGs in the atmosphere and the resulting warming have led to more frequent and more intense heat waves and extreme weather events, rising sea levels, and retreating snow and ice, all of which are occurring at a pace and scale that threatens human welfare.

The power sector in the United States (U.S.) is both a key contributor to the cause of climate change and a key component of the solution to the climate challenge. In 2020, the power sector was the largest stationary source of GHGs, emitting 25 percent of the overall domestic emissions.<sup>2</sup> These emissions are almost entirely the result of the combustion of fossil fuels in the EGUs that are the subjects of these proposals.

The power sector possesses many opportunities to contribute to solutions to the climate challenge. Particularly relevant to these proposals are several key technologies (co-firing of low-GHG fuels and CCS) that can allow steam generating EGUs and stationary combustion turbines (the focus of these proposals) to provide power while emitting significantly lower GHG emissions. Moreover, with the increased electrification of other GHG-emitting sectors of the economy, such as personal vehicles, heavy-duty trucks, and the heating and cooling of buildings, a power sector with lower GHG emissions can also help reduce pollution coming from other sectors of the economy.

#### B. Overview of the Proposals

As noted above, these actions include proposed BSER determinations and accompanying standards of performance for GHG emissions from new and reconstructed fossil fuel-fired stationary combustion turbines, proposed repeal of the ACE Rule, proposed BSER determinations and emission guidelines for existing fossil fuel-fired steam generating units, proposed BSER determinations and emission guidelines for large, frequently used existing fossil fuel-fired stationary combustion turbines, and solicitation for comment on potential BSER options and emission guidelines for existing fossil fuel-fired

stationary combustion turbines not otherwise covered by the proposal.

The EPA is taking these actions consistent with the process that CAA section 111 establishes. Under CAA section 111, once the EPA has identified a source category that emits dangerous air pollutants, it proceeds to regulate new sources and, for GHGs and certain other air pollutants, existing sources. The central requirement is that the EPA must determine the “best system of emission reduction . . . adequately demonstrated,” taking into account the cost of the reductions, non-air quality health and environmental impacts, and energy requirements. CAA section 111(a)(1). The EPA may determine that different sets of sources have different characteristics relevant for determining the BSER and may subcategorize sources accordingly.

Once it determines the BSER, the EPA must determine the “degree of emission limitation” achievable by application of the BSER. For new sources, the EPA determines the standard of performance with which the sources must comply, which is a standard for emissions that reflects the degree of emission limitation. For existing sources, the EPA includes the information it has developed concerning the BSER and associated degree of emission limitation into emission guidelines and directs the states to adopt State plans that contain standards of performance that are consistent with the emission guidelines.

Since the early 1970s, the EPA has promulgated regulations under section 111 for more than 60 source categories, which has established a robust regulatory history. During this period, the courts, primarily the U.S. Court of Appeals for the D.C. Circuit and the Supreme Court, have developed a body of caselaw interpreting section 111. As the Supreme Court has recognized, in these CAA section 111 actions, the EPA has determined the BSER to be “measures that improve the pollution performance of individual sources,” including add-on controls and clean fuels. *West Virginia v. EPA*, 142 S. Ct. 2587, 2614 (2022). For present purposes, several of a BSER's key features include that costs of controls must be reasonable, that the EPA may determine a control to be “adequately demonstrated” even if it is new and not yet in widespread commercial use, and, further, that the EPA may reasonably project the development of a control system at a future time and establish requirements that take effect at that time. The actions that the EPA is proposing are consistent with the requirements of CAA section 111 and its regulatory history and caselaw.

<sup>2</sup> <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.

### 1. New and Reconstructed Fossil Fuel-Fired Combustion Turbines

For new and reconstructed fossil fuel-fired combustion turbines, the EPA is proposing to create three subcategories based on the function the combustion turbine serves: a low load (“peaking units”) subcategory that consists of combustion turbines with a capacity factor of less than 20 percent; an intermediate load subcategory for combustion turbines with a capacity factor that ranges between 20 percent and a source-specific upper bound that is based on the design efficiency of the combustion turbine; and a base load subcategory for combustion turbines that operate above the upper-bound threshold for intermediate load turbines. This subcategorization approach is similar to the current NSPS for these sources, which includes separate subcategories for base load and non-base load units; however, the EPA is now proposing to subdivide the non-base load subcategory into a low load subcategory and a separate intermediate load subcategory. This revised approach to subcategories is consistent with the fact that utilities and power plant operators are building new combustion turbines with plans to operate them at varying levels of capacity, in coordination with existing and expected energy sources. These patterns of operation are important for the type of controls that the EPA is proposing as the BSER for these turbines, in terms of the feasibility of, emissions reductions that would be achieved by, and cost-reasonableness of, those controls.

For the low load subcategory, the EPA is proposing that the BSER is the use of lower emitting fuels (e.g., natural gas and distillate oil) with standards of performance ranging from 120 lb CO<sub>2</sub>/MMBtu to 160 lb CO<sub>2</sub>/MMBtu, depending on the type of fuel combusted.<sup>3</sup> For the intermediate load and base load subcategories, the EPA is proposing an approach in which the BSER has multiple components: (1) Highly efficient generation; and (2) depending on the subcategory, use of CCS or co-firing low-GHG hydrogen.

These components of the BSER for the intermediate and base load subcategories form the basis of a standard of performance that applies in multiple phases. That is, affected facilities—which are facilities that

commence construction or reconstruction after the date of publication in the **Federal Register** of this proposed rulemaking—must meet the first phase of the standard of performance, which is based exclusively on application of the first component of the BSER (highly efficient generation), by the date the rule is promulgated. Affected sources in the intermediate load and base load subcategories must also meet the second and in some cases third and more stringent phases of the standard of performance, which are based on the continued application of the first component of the BSER and the application of the second and in some cases third component of the BSER. For base load units, the EPA is proposing two pathways as potential BSER—(1) the use of CCS to achieve a 90 percent capture of GHG emissions by 2035 and (2) the co-firing of 30 percent (by volume) low-GHG hydrogen by 2032, and ramping up to 96 percent by volume low-GHG hydrogen by 2038. These two BSER pathways both offer significant opportunities to reduce GHG emissions but, may be available on slightly different timescales. Depending upon the phase in periods for both CCS and hydrogen, the CCS pathway could provide greater cumulative emission reductions than the low GHG hydrogen pathway. The EPA seeks comment specifically upon the percentages of hydrogen co-firing and CO<sub>2</sub> capture as well as the dates that meet the statutory BSER criteria for each pathway. The EPA solicits comment on the differences in emissions reductions in both scale and time that would result from the two standards and BSER pathways, including how to calculate the different amounts of emission reductions, how to compare them, and what conclusions to draw from those differences. The EPA also seeks comment on whether the Agency should finalize both pathways as separate subcategories with separate standards of performance, or whether it should finalize one pathway with the option of meeting the standard of performance using either system of emission reduction, e.g., a single standard based on application of CCS with 90 percent capture, which could also be met by co-firing 96 percent (by volume) low-GHG hydrogen.

It should be noted that utilization of highly efficient generation is a logical complement to both CCS and co-firing of low-GHG hydrogen because, from both an economic and emissions perspective, that configuration will provide the greatest reductions at the lowest cost. This approach reflects the EPA’s view that the BSER for the

intermediate load and base load subcategories should reflect the deeper reductions in GHG emissions that can be achieved by implementing CCS and co-firing low-GHG hydrogen with the most efficient stationary combustion turbine configuration available. However, in proposing that compliance begins in 2032 (for co-firing with low-GHG hydrogen) and 2035 (for use of CCS), the EPA recognizes that building the infrastructure required to support wider use of CCS and qualified low-GHG hydrogen in the power sector will take place on a multi-year time scale.

More specifically, with respect to the first phase of the standards of performance, the EPA is proposing that the BSER for both the intermediate load and base load subcategories includes highly efficient generating technology (i.e., the most efficient available turbines). For the intermediate load subcategory, the EPA is proposing that the BSER includes highly efficient simple cycle combustion turbine technology with an associated first phase standard of 1,150 lb CO<sub>2</sub>/MWh-gross. For the base load subcategory, the EPA is proposing that the BSER includes highly efficient combined cycle technology with an associated first phase standard of 770 lb CO<sub>2</sub>/MWh-gross for larger combustion turbine EGUs with a base load rating of 2,000 MMBtu/h or more. For smaller base load combustion turbines (with a base load rating of less than 2,000 MMBtu/h), the proposed associated standard would range from 770 to 900 lb CO<sub>2</sub>/MWh-gross depending on the specific base load rating of the combustion turbine. These standards would apply immediately upon the effective date of the final rule.

With respect to the second phase of the standards of performance, for the intermediate load subcategory, the EPA is proposing that the BSER includes co-firing 30 percent by volume low-GHG hydrogen (unless otherwise noted, all co-firing hydrogen percentages are on a volume basis) with an associated standard of 1,000 lb CO<sub>2</sub>/MWh-gross, compliance with which would be required starting in 2032. For the base load subcategory, to elicit comment on both pathways, the EPA is proposing to subcategorize further into base load units that are adopting the CCS pathway and base load units that are adopting the low-GHG hydrogen co-firing pathway. For the subcategory of base load units that are adopting the CCS pathway, the EPA is proposing that the BSER includes the use of CCS with 90 percent capture of CO<sub>2</sub> with an associated standard of 90 lb CO<sub>2</sub>/MWh-gross, compliance with which would be

<sup>3</sup>In the 2015 NSPS, the EPA referred to clean fuels as fuels with a consistent chemical composition (i.e., uniform fuels) that result in a consistent emission rate of 69 kilograms per gigajoule (kg/GJ) (160 lb CO<sub>2</sub>/MMBtu). Fuels in this category include natural gas and distillate oil. In this rulemaking, the EPA refers to these fuels as both lower emitting fuels or uniform fuels.

required starting in 2035. For the subcategory of base load units that are adopting the low-GHG hydrogen co-firing pathway, the EPA is proposing that the BSER includes co-firing 30 percent (by volume) low-GHG hydrogen with an associated standard of 680 lb CO<sub>2</sub>/MWh-gross, compliance with which would be required starting in 2032, and co-firing 96 percent (by volume) low-GHG hydrogen by 2038, which corresponds to a standard of performance of 90 lb CO<sub>2</sub>/MWh-gross. In both cases, the second (and sometimes third) phase standard of performance would be applicable to all combustion turbines that were subject to the first phase standards of performance.

#### Existing and Modified Fossil Fuel-Fired Steam Generating Units and ACE Repeal

With respect to existing coal-fired steam generating units, the EPA is proposing to repeal and replace the existing ACE Rule emission guidelines. The EPA recognizes that, since it promulgated the ACE Rule, the costs of CCS have decreased due to technology advancements as well as new policies including the expansion of the Internal Revenue Code section 45Q tax credit for CCS in the Inflation Reduction Act (IRA); and the costs of natural gas co-firing have decreased as well, due in large part to a decrease in the difference between coal and natural gas prices. As a result, the EPA considered both CCS and natural gas co-firing as candidates for BSER for existing coal-fired steam EGUs.

Based on the latest information available to the Agency on cost, emission reductions, and other statutory criteria, the EPA is proposing that the BSER for existing coal-fired steam EGUs that expect to operate in the long-term is CCS with 90 percent capture of CO<sub>2</sub>. The EPA has determined that CCS satisfies the BSER criteria for these sources because it is adequately demonstrated, achieves significant reductions in GHG emissions, and is highly cost-effective.

Although the EPA considers CCS to be a broadly applicable BSER, the Agency also recognizes that CCS will be most cost-effective for existing steam EGUs that are in a position to recover the capital costs associated with CCS over a sufficiently long period of time. During the early engagement process (see Docket ID No. EPA-HQ-OAR-2022-0723-0024), industry stakeholders requested that the EPA “[p]rovide approaches that allow for the retirement of units as opposed to investments in new control technologies, which could prolong the lives of higher-emitting

EGUs; this will achieve maximum and durable environmental benefits.” Industry stakeholders also suggested that the EPA recognize that some units may remain operational for a several-year period but will do so at limited capacity (in part to assure reliability), and then voluntarily cease operations entirely (see Docket ID No. EPA-HQ-OAR-2022-0723-0029).

In response to this industry stakeholder input and recognizing that the cost effectiveness of controls depends on the unit’s expected operating time horizon, which dictates the amortization period for the capital costs of the controls, the EPA believes it is appropriate to establish subcategories of existing steam EGUs that are based on the operating horizon of the units. The EPA is proposing that for units that expect to operate in the long-term (*i.e.*, those that plan to operate past December 31, 2039), the BSER is the use of CCS with 90 percent capture of CO<sub>2</sub> with an associated degree of emission limitation of an 88.4 percent reduction in emission rate (lb CO<sub>2</sub>/MWh-gross basis). As explained in detail in this proposal, CCS with 90 percent capture of CO<sub>2</sub> is adequately demonstrated, cost reasonable, and achieves substantial emissions reductions from these units.

The EPA is proposing to define coal-fired steam generating units with medium-term operating horizons as those that (1) Operate after December 31, 2031, (2) have elected to commit to permanently cease operations before January 1, 2040, (3) elect to make that commitment federally enforceable and continuing by including it in the State plan, and (4) do not meet the definition of near-term operating horizon units. For these medium-term operating horizon units, the EPA is proposing that the BSER is co-firing 40 percent natural gas on a heat input basis with an associated degree of emission limitation of a 16 percent reduction in emission rate (lb CO<sub>2</sub>/MWh-gross basis). While this subcategory is based on a 10-year operating horizon (*i.e.*, January 1, 2040), the EPA is specifically soliciting comment on the potential for a different operating horizon between 8 and 10 years to define the threshold date between the definition of medium-term and long-term coal-fired steam generating units (*i.e.*, January 1, 2038 to January 1, 2040), given that the costs for CCS may be reasonable for units with amortization periods as short as 8 years. For units with operating horizons that are imminent-term, *i.e.*, those that (1) Have elected to commit to permanently cease operations before January 1, 2032, and (2) elect to make that commitment

federally enforceable and continuing by including it in the State plan, the EPA is proposing that the BSER is routine methods of operation and maintenance with an associated degree of emission limitation of no increase in emission rate (lb CO<sub>2</sub>/MWh-gross basis). The EPA is proposing the same BSER determination for units in the near-term operating horizon subcategory, *i.e.*, units that (1) Have elected to commit to permanently cease operations by December 31, 2034, as well as to adopt an annual capacity factor limit of 20 percent, and (2) elect to make both of these conditions federally enforceable by including them in the State plan. The EPA is also soliciting comment on a potential BSER based on low levels of natural gas co-firing for units in these last two subcategories.

The EPA is not proposing to revise the NSPS for newly constructed or reconstructed fossil fuel-fired steam generating units, which it promulgated in 2015 (80 FR 64510; October 23, 2015). This is because the EPA does not anticipate that any such units will construct or reconstruct and is unaware of plans by any companies to construct or reconstruct a new coal-fired EGU. The EPA is proposing to revise the standards of performance that it promulgated in the same 2015 action for coal-fired steam generators that undertake a large modification (*i.e.*, a modification that increases its hourly emission rate by more than 10 percent) to mirror the emissions guidelines, discussed below, for existing coal-fired steam generators. This will ensure that all existing fossil fuel-fired steam generating sources are subject to the emission controls whether they modify or not.

The EPA is also proposing emission guidelines for existing natural gas-fired and oil-fired steam generating units. Recognizing that virtually all of these units have limited operation, the EPA is, in general, proposing that the BSER is routine methods of operation and maintenance with an associated degree of emission limitation of no increase in emission rate (lb CO<sub>2</sub>/MWh-gross).

#### 3. Existing Fossil Fuel-Fired Stationary Combustion Turbines

The EPA is also proposing emission guidelines for large (*i.e.*, greater than 300 MW), frequently operated (*i.e.*, with a capacity factor of greater than 50 percent), existing fossil fuel-fired stationary combustion turbines. Because these existing combustion turbines are similar to new stationary combustion turbines, the EPA is proposing a BSER that is similar to the BSER for new base load combustion turbines. The EPA is

not proposing a first phase efficiency-based standard of performance; but the EPA is proposing that BSER for these units is based on either the use of CCS by 2035 or co-firing of 30 percent (by volume) low-GHG hydrogen by 2032 and co-firing 96 percent low-GHG hydrogen by 2038.

For the emission guidelines for existing fossil fuel-fired steam generating units and large, frequently operated fossil fuel-fired combustion turbines, the EPA is also proposing State plan requirements, including submittal timelines for State plans and methodologies for determining presumptively approvable standards of performance consistent with BSER. This proposal also addresses how states can implement the remaining useful life and other factors (RULOF) provision of CAA section 111(d) and how states can conduct meaningful engagement with impacted stakeholders. Finally, the EPA is proposing to allow states to include trading or averaging in State plans so long as they demonstrate equivalent emissions reductions, and this proposal discusses considerations related to the appropriateness of including such compliance flexibilities.

Finally, the EPA is soliciting comment on a number of variations to the subcategories and BSER determinations, as well as the associated degrees of emission limitation and standards of performance, summarized above. The EPA is soliciting comment on the capacity and capacity factor threshold for inclusion in the subcategory of large, frequently operated turbines (e.g., capacities between 100 MW and 300 MW for the capacity threshold and a lower capacity factor threshold (e.g., 40 percent). The EPA is also soliciting comment on BSER options and associated degrees of emission limitation for existing fossil fuel-fired stationary combustion turbines for which no BSER is being proposed (i.e., fossil fuel-fired stationary combustion turbines that are not large, frequently operated turbines).

### C. Recent Developments in Emissions Controls and the Electric Power Sector

Several recent developments concerning emissions controls and the state of the electric power sector are relevant for the EPA's determination of the BSER for existing coal-fired steam generating EGUs and natural gas-fired combustion turbines. These include developments that have led to significant reductions in the cost of CCS; expected increases in the availability and expected reductions in the cost of low-GHG hydrogen; and

announced and planned retirements of coal-fired power plants.

In recent years, the cost of CCS has declined in part because of process improvements learned from earlier deployments of CCS and other advances. In addition, the IRA, enacted in 2022, extended and significantly increased the tax credit for CCS under Internal Revenue Code (IRC) section 45Q. As explained in detail in the BSER discussions later in this preamble, these changes support the EPA's proposed conclusion that CCS is the BSER for a number of subcategories in these proposals.

In addition, in both the Infrastructure Investment and Jobs Act (IIJA), enacted in 2021, and the IRA, Congress provided extensive support for the development of hydrogen produced through low-GHG methods. This support includes investment in infrastructure through the IIJA and the provision of tax credits in the IRA to incentivize the manufacture of hydrogen through low GHG-emitting methods. These changes also support the EPA's proposal that co-firing low-GHG hydrogen is BSER for certain subcategories of stationary combustion turbines.

The IIJA and IRA have also been part of the reason why many utilities and power generating companies have recently announced plans to change the mix of their generating assets. State legislation, technology advancements, market forces, consumer demand, and the fact that the existing fossil fuel-fired fleet is aging are also leading to, in most cases, decreased use of the fossil fuel-fired units that are the subjects of these proposals. Between 2010 and 2021, fossil fuel-fired generation declined from approximately 70 percent of total net generation to approximately 60 percent, with coal generation dropping from 46 percent to 23 percent of net generation during the period.

Many utilities and power generating companies have announced GHG reduction commitments as they further analyze and consider the incentives of the IRA. These utilities and companies have also announced their intention to permanently cease operating many of their remaining coal-fired EGUs. Some companies are planning to install combustion turbines with advanced technologies to limit GHG emissions, including CCS and hydrogen co-firing<sup>4</sup> (with some companies having announced plans to ultimately move to

100 percent hydrogen firing) and advanced energy storage technologies. As more renewables come online and as these technologies become more widely deployed, the utilization of natural gas-fired combustion turbine EGUs will be impacted. The EPA's post-IRA 2022 reference case modeling projects lower utilization relative to current levels of stationary combustion turbines.

The power sector has also been influenced by the actions of State governments to reduce GHG emissions. More than two-thirds of states have enacted policies to require utilities to increase the amount of electricity generated from sources that emit no GHGs. Other states have recently enacted significant legislation requiring the decarbonization of their utility fleets, using devices such as carbon markets, low-GHG emission standards, carbon capture and storage mandates, utility planning, or mandatory retirement schedules.

Additionally, Congress has recently enacted investments in GHG reductions. As noted earlier, Congress enacted IRC section 45Q by section 115 of the Energy Improvement and Extension Act of 2008, to provide a credit for the sequestration of CO<sub>2</sub>; IRC section 45Q was amended significantly by the Bipartisan Budget Act of 2018 and most recently by the IRA. The IIJA provided more than \$65 billion for infrastructure investments and upgrades for transmission capacity, pipelines, and low-carbon fuels (including low-GHG hydrogen, as noted above). In addition, the Creating Helpful Incentives to Produce Semiconductors and Science Act (CHIPS Act) authorized billions more in funding for development of low- and non-GHG emitting energy technologies that will provide additional low-cost options for power companies to reduce overall GHG emissions.<sup>5</sup>

Finally, the EPA has carefully considered the importance of maintaining resource adequacy and grid reliability in developing these proposals and is confident that these proposed NSPS and emission guidelines—with the extensive lead time and compliance flexibilities they provide—can be successfully implemented in a manner that preserves the ability of power companies and grid operators to maintain the reliability of the nation's electric power system. The EPA has evaluated the reliability implications of the proposal in the *Resource Adequacy Analysis* TSD; conducted dispatch modeling of the proposed NSPS and

<sup>4</sup> See section VII.F.3.b of this preamble for discussion of CCS demonstrations and section VII.F.3.c for discussion of hydrogen co-firing demonstrations. Also see the *GHG Mitigation Measures for Steam Generating Units* TSD included in the rulemaking docket for this proposal.

<sup>5</sup> <https://www.congress.gov/bill/117th-congress/house-bill/4346>.

proposed emission guidelines in a manner that takes into account resource adequacy needs; and consulted with the DOE and the Federal Energy Regulatory Commission (FERC) in the development of these proposals. Moreover, the EPA has included in these proposals the flexibility that power companies and grid operators need to plan for achieving feasible and necessary reductions of GHGs from these sources consistent with the EPA's statutory charge while ensuring grid reliability. Furthermore, the EPA is soliciting comment on localized impacts of these proposals on resource adequacy and reliability, and on opportunities to enhance reliable integration of the proposals into the power system.

#### *D. How the EPA Considered Environmental Justice in the Development of These Proposals*

Consistent with E.O. 12898, E.O. 13985 and the EPA's commitment to upholding environmental justice across its policies and programs, the EPA carefully considered the impacts of these proposals on communities with potential environmental justice concerns. As part of its pre-proposal outreach to stakeholders, the EPA engaged on multiple occasions with environmental justice organizations and representatives of communities that are affected by various forms of pollution from the power sector. The EPA took this feedback and analysis into account in its development of these proposals. The EPA's consideration of environmental justice in these proposals is briefly summarized here and discussed in further detail in sections XIV.E and XV.J of the preamble and section 6 of the RIA.

These proposals are focused on establishing NSPS and emission guidelines for GHGs, and these proposed actions will, in conjunction with other policies such as the IRA, play a significant role in reducing GHGs and move us a step closer to avoiding the worst impacts of climate change, which is already having a disproportionate impact on EJ communities. Beyond the GHG reductions, the EPA also has conducted a thorough evaluation of the impacts that these proposals would have on emissions of other health-harming air pollutants from EGUs, as well as how these changes in emissions would affect air quality and public health, particularly for historically overburdened populations including people of color, indigenous peoples, and people with low incomes.

The EPA's national-level analysis of emission reduction and public health impacts, which is documented in

sections 3 and 4 of the RIA and summarized in greater detail in section XIV.A and XIV.D of this preamble, finds that these proposals would achieve nationwide reductions in EGU emissions of multiple health-harming air pollutants including nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and fine particulate matter (PM<sub>2.5</sub>). These reductions in health-harming pollution would result in significant public health benefits including avoided premature deaths, reductions in new asthma cases and incidences of asthma symptoms, reductions in hospital admissions and emergency department visits, and reductions in lost work and school days.

The EPA has also evaluated how the air quality impacts associated with these proposals would be distributed, with particular focus on potentially vulnerable populations. As discussed in section 6 of the RIA, these proposals are anticipated to lead to modest but widespread reductions in ambient levels of PM<sub>2.5</sub> for a large majority of the nation's population, as well as reductions in ambient PM<sub>2.5</sub> exposures that are similar in magnitude across all racial, ethnic, income and linguistic groups. Similarly, the EPA found that the proposed standards are anticipated to lead to modest but widespread reductions in ambient levels of ground-level ozone for the majority of the nation's population, and that in all but one of the years evaluated the proposed standards would lead to reductions in ambient ozone exposures across all demographic groups. Although these reductions in PM<sub>2.5</sub> and ozone exposures are small relative to baseline levels, and although disparities in PM<sub>2.5</sub> and ozone exposure would continue to persist following these proposals, the EPA's analysis indicates that the air quality benefits of these proposals would be broadly distributed.

Where authorized under section 111 of the Clean Air Act, the EPA has also incorporated provisions in these proposals to better address the needs and concerns of communities with environmental justice concerns. Specifically, the EPA's proposed emission guidelines for existing steam EGUs as well as existing fossil fuel-fired stationary combustion turbines would require states to undertake meaningful engagement with affected stakeholders, including communities that are most affected by and vulnerable to emissions from these EGUs. These meaningful engagement requirements are intended to ensure that the perspectives, priorities, and concerns of affected communities are included in the process of establishing and implementing standards of performance

for existing EGUs, including decisions about compliance strategies and compliance flexibilities that may be included in a State plan.

In the Agency's pre-proposal outreach, some environmental justice organizations and community representatives raised strongly held concerns about the potential health, environmental, and safety impacts of CCS. The EPA believes that deployment of CCS can take place in a manner that is protective of public health, safety, and the environment, and should include early and meaningful engagement with affected communities and the public. As stated in the Council on Environmental Quality's (CEQ) February 2022 Carbon Capture, Utilization, and Sequestration Guidance, "the successful widespread deployment of responsible CCUS will require strong and effective permitting, efficient regulatory regimes, meaningful public engagement early in the review and deployment process, and measures to safeguard public health and the environment." See 87 FR 8808 (February 16, 2022).

The EPA gave close consideration to these concerns as it developed its proposed determinations on the BSER for these proposed NSPS and emission guidelines, and addresses certain of the substantive issues that were raised in pre-proposal discussions in sections VII.F.3.b.iii(C) and X.D.1.a.iii of this preamble. As explained in these sections, the EPA is proposing to determine that CCS is the BSER for certain subcategories of new and existing EGUs based on its consideration of all of the statutory criteria for BSER, including emission reductions, cost, energy requirements, and non-air health and environmental considerations. In evaluating concerns raised by stakeholders in connection with CCS, the EPA is mindful that Federal agencies have "taken actions in the past decade to develop a robust CCUS regulatory framework to protect the environment and public health across multiple statutes."<sup>6</sup>

This framework includes, among other things, the EPA regulation of geologic sequestration wells under the Underground Injection Control (UIC) program of the Safe Drinking Water Act; required reporting and public disclosure of geologic sequestration activity, as well as implementation of rigorous monitoring, reporting, and verification of geologic sequestration, under the

<sup>6</sup> Carbon Capture, Utilization, and Sequestration Guidance, 87 FR 8808, 8809 (February 16, 2022), <https://www.govinfo.gov/content/pkg/FR-2022-02-16/pdf/2022-03205.pdf>.

EPA's Greenhouse Gas Reporting Program; and safety regulations for CO<sub>2</sub> pipelines administered by the Pipeline and Hazardous Materials and Safety Administration (PHMSA). With respect to air emissions, some CCS projects may also require pre-construction permitting under the Clean Air Act's New Source Review (NSR) program and the adoption of additional emission limitations for non-GHG air pollutants based on applicable control technology requirements. The EPA invites public comment and feedback from stakeholders on all aspects of its proposed determination that CCS represents the BSER for certain new and existing fossil fuel-fired EGUs, including its evaluation of the various regulatory frameworks that apply to CCS.

CEQ's guidance, and the EPA's evaluation of BSER, recognizes that multiple Federal agencies have responsibility for regulating and permitting CCS projects, along with State and Tribal governments. The EPA is committed to working with Federal, State, and Tribal partners to ensure the responsible deployment of CCS, to protect communities from pollution, and to foster meaningful engagement with communities. This can be facilitated through the existing detailed regulatory framework for CCS projects and further supported through robust and meaningful public engagement early in the project development process. Furthermore, the EPA is requesting comment on what assistance states and pertinent stakeholders may need in conducting meaningful engagement with affected communities to ensure that there are adequate opportunities for public input on decisions to implement emissions control technology (including but not limited to CCS or low-GHG hydrogen).

## II. General Information

### A. Action Applicability

The source category that is the subject of these actions is comprised of the fossil fuel-fired electric utility generating units regulated under CAA section 111. The North American Industry Classification System (NAICS) codes for the source category are 221112 and 921150. The list of categories and NAICS codes is not intended to be exhaustive, but rather provides a guide for readers regarding the entities that these proposed actions are likely to affect.

The proposed amendments to 40 CFR part 60, subpart TTTT, once promulgated, will be directly applicable to affected facilities that began

construction after January 8, 2014, and affected facilities that began reconstruction or modification after June 18, 2014. The proposed NSPS, proposed to be codified in 40 CFR part 60, subpart TTTT, once promulgated, will be directly applicable to affected facilities that begin construction or reconstruction after the date of publication of the proposed standards in the **Federal Register**. Federal, State, local, and Tribal government entities that own and/or operate EGUs subject to 40 CFR part 60, subparts TTTT or TTTT would be affected by these proposed amendments and standards.

The proposed emission guidelines for GHG emissions from fossil fuel-fired EGUs proposed to be codified in 40 CFR part 60, subpart UUUU, once promulgated, will be applicable to states in the development and submittal of State plans pursuant to CAA section 111(d). After the EPA promulgates a final emission guideline, each State that has one or more designated facilities must develop, adopt, and submit to the EPA a State plan under CAA section 111(d). The term "designated facility" means "any existing facility . . . which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility." See 40 CFR 60.21a(b). If a State fails to submit a plan or the EPA determines that a State plan is not satisfactory, the EPA has the authority to establish a Federal CAA section 111(d) plan in such instances.

Under the Tribal Authority Rule adopted by the EPA, Tribes may seek authority to implement a plan under CAA section 111(d) in a manner similar to a State. See 40 CFR part 49, subpart A. Tribes may, but are not required to, seek approval for treatment in a manner similar to a State for purposes of developing a Tribal Implementation Plan (TIP) implementing an emission guideline. If a Tribe does not seek and obtain the authority from the EPA to establish a TIP, the EPA has the authority to establish a Federal CAA section 111(d) plan for designated facilities that are located in areas of Indian country. A Federal plan would apply to all designated facilities located in the areas of Indian country covered by the Federal plan unless and until the EPA approves a TIP applicable to those facilities.

### B. Where To Get a Copy of This Document and Other Related Information

In addition to being available in the docket, an electronic copy of this action is available on the internet at [https://](https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power)

[www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power](https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power). Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the proposals and key technical documents at this same website.

Memoranda showing the edits that would be necessary to incorporate the changes to 40 CFR part 60, subpart TTTT and UUUU and new 40 CFR part 60, subparts TTTT and UUUU proposed in these actions are available in the docket (Docket ID No. EPA-HQ-OAR-2023-0072). Following signature by the EPA Administrator, the EPA also will post a copy of the documents at <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>.

### C. Organization and Approach for These Proposed Rules

This rulemaking includes several proposed actions: (1) The EPA's proposed amendments to the Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64510; October 23, 2015) (2015 NSPS) and (2) proposed requirements for GHG emissions from new and reconstructed fossil fuel-fired stationary combustion turbine EGUs. These actions also (3) propose to repeal the ACE Rule (84 FR 32523; July 8, 2019), (4) propose new emission guidelines for states in developing plans to reduce GHG emissions from existing fossil fuel-fired steam generating EGUs, which include both coal-fired and oil- and natural gas-fired steam generating EGUs, and (5) propose new emission guidelines for states in developing plans to reduce GHG emissions from existing fossil fuel-fired stationary combustion turbines. The EPA proposes that each of these actions function independently and are therefore severable. The EPA invites comment on the question of which portions of these proposed rules, if any, should be severable.

Section III of this preamble provides updated information on the impacts of climate change. In section IV, the EPA provides a summary of recent developments in emissions controls and the electric power sector. Section V presents a summary of the statutory background and regulatory history. In section VI, the EPA summarizes stakeholder outreach efforts. In section VII, the EPA describes the proposed BSERs, standards of performance, and associated requirements for new and reconstructed fossil fuel-fired stationary combustion turbine EGUs. In section



VIII, the EPA presents proposed amendments to requirements for new, reconstructed, and modified fossil fuel-fired steam generating units. In section IX, the EPA provides a summary of the ACE Rule and proposes its repeal. In section X, the EPA presents the proposed BSERs, degree of emission limitation, and related requirements for the proposed emission guidelines for existing fossil fuel-fired steam generating EGUs. In section XI, the EPA presents the proposed BSERs, degree of emission limitation, and related requirements for the proposed emission guidelines for existing natural gas-fired combustion turbines. Section XII presents the requirements for State plan development. In section XIII, the EPA describes the implications for these proposals on other EPA programs and rules. Section XIV describes the impacts of these proposals. Finally, in section XV, the EPA provides the statutory and executive order reviews.

### III. Climate Change and Its Impacts

Elevated concentrations of GHGs are and have been warming the planet, leading to changes in the Earth's climate including changes in the frequency and intensity of heat waves, precipitation, and extreme weather events; rising seas; and retreating snow and ice. The changes taking place in the atmosphere as a result of the well-documented buildup of GHGs due to human activities are transforming the climate at a pace and scale that threatens human health, society, and the natural environment. Human-induced GHGs, largely derived from our reliance on fossil fuels, are causing serious and life-threatening environmental and health impacts.

Extensive additional information on climate change is available in the scientific assessments and the EPA documents that are briefly described in this section, as well as in the technical and scientific information supporting them. One of those documents is the EPA's 2009 Endangerment and Cause or Contribute Findings for GHGs Under section 202(a) of the CAA (74 FR 66496; December 15, 2009).<sup>7</sup> In the 2009 Endangerment Findings, the Administrator found under section 202(a) of the CAA that elevated atmospheric concentrations of six key well-mixed GHGs—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—“may reasonably be

<sup>7</sup> In describing these 2009 Findings in these proposals, the EPA is neither reopening nor revisiting them.

anticipated to endanger the public health and welfare of current and future generations” (74 FR 66523; December 15, 2009), and the science and observed changes have confirmed and strengthened the understanding and concerns regarding the climate risks considered in the Finding. The 2009 Endangerment Findings, together with the extensive scientific and technical evidence in the supporting record, documented that climate change caused by human emissions of GHGs threatens the public health of the U.S. population. It explained that by raising average temperatures, climate change increases the likelihood of heat waves, which are associated with increased deaths and illnesses (74 FR 66497; December 15, 2009). While climate change also increases the likelihood of reductions in cold-related mortality, evidence indicates that the increases in heat mortality will be larger than the decreases in cold mortality in the U.S. (74 FR 66525; December 15, 2009). The 2009 Endangerment Findings further explained that compared to a future without climate change, climate change is expected to increase tropospheric ozone pollution over broad areas of the U.S., including in the largest metropolitan areas with the worst tropospheric ozone problems, and thereby increase the risk of adverse effects on public health (74 FR 66525; December 15, 2009). Climate change is also expected to cause more intense hurricanes and more frequent and intense storms of other types and heavy precipitation, with impacts on other areas of public health, such as the potential for increased deaths, injuries, infectious and waterborne diseases, and stress-related disorders (74 FR 66525; December 15, 2009). Children, the elderly, and the poor are among the most vulnerable to these climate-related health effects (74 FR 66498; December 15, 2009).

The 2009 Endangerment Findings also documented, together with the extensive scientific and technical evidence in the supporting record, that climate change touches nearly every aspect of public welfare<sup>8</sup> in the U.S. including changes in water supply and quality due to increased frequency of drought and extreme rainfall events;

<sup>8</sup> The CAA states in section 302(h) that “[a]ll language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.” 42 U.S.C. 7602(h).

increased risk of storm surge and flooding in coastal areas and land loss due to inundation; increases in peak electricity demand and risks to electricity infrastructure; predominantly negative consequences for biodiversity and the provisioning of ecosystem goods and services; and the potential for significant agricultural disruptions and crop failures (though offset to some extent by carbon fertilization). These impacts are also global and may exacerbate problems outside the U.S. that raise humanitarian, trade, and national security issues for the U.S. (74 FR 66530; December 15, 2009).

In 2016, the Administrator similarly issued Endangerment and Cause or Contribute Findings for GHG emissions from aircraft under section 231(a)(2)(A) of the CAA (81 FR 54422; August 15, 2016).<sup>9</sup> In the 2016 Endangerment Findings, the Administrator found that the body of scientific evidence amassed in the record for the 2009 Endangerment Findings compellingly supported a similar endangerment finding under CAA section 231(a)(2)(A) and also found that the science assessments released between the 2009 and the 2016 Findings, “strengthen and further support the judgment that GHGs in the atmosphere may reasonably be anticipated to endanger the public health and welfare of current and future generations.” 81 FR 54424 (August 15, 2016).

Since the 2016 Endangerment Findings, the climate has continued to change, with new records being set for several climate indicators such as global average surface temperatures, GHG concentrations, and sea level rise. Moreover, heavy precipitation events have increased in the Eastern U.S. while agricultural and ecological drought has increased in the Western U.S. along with more intense and larger wildfires.<sup>10</sup> These and other trends are examples of the risks discussed in the 2009 and 2016 Endangerment Findings that have already been experienced. Additionally, major scientific assessments continue to demonstrate advances in our understanding of the climate system and the impacts that GHGs have on public health and welfare both for current and future generations. These updated observations and projections document the rapid rate of current and future climate change both

<sup>9</sup> In describing these 2016 Findings in these proposals, the EPA is neither reopening nor revisiting them.

<sup>10</sup> See later in this section for specific examples. An additional resource for indicators can be found at <https://www.epa.gov/climate-indicators>.



globally and in the U.S. These assessments include:

- U.S. Global Change Research Program's (USGCRP) 2016 Climate and Health Assessment<sup>11</sup> and 2017–2018 Fourth National Climate Assessment (NCA4).<sup>12–13</sup>
- Intergovernmental Panel on Climate Change (IPCC) 2018 Global Warming of 1.5 °C,<sup>14</sup> 2019 Climate Change and Land,<sup>15</sup> and the 2019 Ocean and Cryosphere in a Changing Climate<sup>16</sup> assessments, as well as the 2021 IPCC Sixth Assessment Report (AR6).<sup>17–18</sup>

<sup>11</sup> USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp.

<sup>12</sup> USGCRP, 2017: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp. doi: 10.7930/J0J964J6.

<sup>13</sup> USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

<sup>14</sup> IPCC, 2018: Global Warming of 1.5 °C. An IPCC Special Report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Portner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)].

<sup>15</sup> IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Portner, D.C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley (eds.)].

<sup>16</sup> IPCC, 2019: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Portner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)].

<sup>17</sup> IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press.

<sup>18</sup> IPCC, 2022: Summary for Policymakers [H.-O. Portner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation and

• The National Academy of Sciences (NAS) 2016 Attribution of Extreme Weather Events in the Context of Climate Change,<sup>19</sup> 2017 Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide,<sup>20</sup> and 2019 Climate Change and Ecosystems<sup>21</sup> assessments.

• National Oceanic and Atmospheric Administration's (NOAA) annual State of the Climate reports published by the Bulletin of the American Meteorological Society,<sup>22</sup> most recently in August of 2022.

• EPA Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts (2021).<sup>23</sup>

The most recent information demonstrates that the climate is continuing to change in response to the human-induced buildup of GHGs in the atmosphere. These recent assessments show that atmospheric concentrations of GHGs have risen to a level that has no precedent in human history and that they continue to climb, primarily as a result of both historic and current anthropogenic emissions, and that these elevated concentrations endanger our health by affecting our food and water sources, the air we breathe, the weather we experience, and our interactions with the natural and built environments. For example, the annual global average atmospheric concentrations of one of these GHGs, CO<sub>2</sub>, measured at Mauna Loa in Hawaii and at other sites around the world reached 415 parts per million (ppm) in 2020 (nearly 50 percent higher than pre-industrial levels)<sup>24</sup> and has continued

Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Portner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, New York, USA, pp. 3–33. doi:10.1017/9781009325844.001.

<sup>19</sup> National Academies of Sciences, Engineering, and Medicine. 2016. Attribution of Extreme Weather Events in the Context of Climate Change. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21852>.

<sup>20</sup> National Academies of Sciences, Engineering, and Medicine. 2017. Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24651>.

<sup>21</sup> National Academies of Sciences, Engineering, and Medicine. 2019. Climate Change and Ecosystems. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25504>.

<sup>22</sup> Blunden, J. and T. Boyer, Eds., 2022: "State of the Climate in 2021." Bull. Amer. Meteor. Soc., 103 (8), Si–S465, <https://doi.org/10.1175/2022BAMSStateoftheClimate.1>.

<sup>23</sup> EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430–R–21–003.

<sup>24</sup> Blunden, J. and T. Boyer, Eds., 2022: "State of the Climate in 2021." Bull. Amer. Meteor. Soc., 103

to rise at a rapid rate. Global average temperature has increased by about 1.1 degrees Celsius (°C) (2.0 degrees Fahrenheit (°F)) in the 2011–2020 decade relative to 1850–1900.<sup>25</sup> The years 2015–2021 were the warmest 7 years in the 1880–2020 record according to six different global surface temperature datasets.<sup>26</sup> The IPCC determined with medium confidence that this past decade was warmer than any multi-century period in at least the past 100,000 years.<sup>27</sup> Global average sea level has risen by about 8 inches (about 21 centimeters (cm)) from 1901 to 2018, with the rate from 2006 to 2018 (0.15 inches/year or 3.7 millimeters (mm)/year) almost twice the rate over the 1971 to 2006 period and three times the rate of the 1901 to 2018 period.<sup>28</sup> The rate of sea level rise during the 20th Century was higher than in any other century in at least the last 2,800 years.<sup>29</sup> Higher CO<sub>2</sub> concentrations have led to acidification of the surface ocean in recent decades to an extent unusual in the past 2 million years, with negative impacts on marine organisms that use calcium carbonate to build shells or skeletons.<sup>30</sup> Arctic sea ice extent continues to decline in all months of the year; the most rapid reductions occur in September (very likely almost a 13 percent decrease per decade between 1979 and 2018) and are unprecedented in at least 1,000 years.<sup>31</sup> Human-induced climate change has led to heatwaves and heavy precipitation becoming more frequent and more intense, along with increases in agricultural and ecological droughts<sup>32</sup> in many regions.<sup>33</sup>

The assessment literature demonstrates that modest additional amounts of warming may lead to a climate different from anything humans have ever experienced. The present-day CO<sub>2</sub> concentration of 415 ppm is already higher than at any time in the last 2 million years.<sup>34</sup> If concentrations exceed 450 ppm, they would likely be higher

(8), Si–S465, <https://doi.org/10.1175/2022BAMSStateoftheClimate.1>.

<sup>25</sup> IPCC, 2021.

<sup>26</sup> Blunden, J. and T. Boyer, Eds., 2022.

<sup>27</sup> IPCC, 2021.

<sup>28</sup> IPCC, 2021.

<sup>29</sup> USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

<sup>30</sup> IPCC, 2021.

<sup>31</sup> IPCC, 2021.

<sup>32</sup> These are drought measures based on soil moisture.

<sup>33</sup> IPCC, 2021.

<sup>34</sup> IPCC, 2021.

than at any time in the past 23 million years:<sup>35</sup> At the current rate of increase of more than 2 ppm per year, this will occur in about 15 years. While buildup of GHGs is not the only factor that controls climate, it is illustrative that 3 million years ago (the last time CO<sub>2</sub> concentrations were this high) Greenland was not yet completely covered by ice and still supported forests, while 23 million years ago (the last time concentrations were above 450 ppm) the West Antarctic ice sheet was not yet developed, indicating the possibility that high GHG concentrations could lead to a world that looks very different from today and from the conditions in which human civilization has developed.<sup>36</sup>

If the Greenland and Antarctic ice sheets were to melt substantially, for example, sea levels would rise dramatically, with potentially severe consequences for coastal cities and infrastructure. The IPCC estimated that during the next 2,000 years, sea level will rise by 7 to 10 feet even if warming is limited to 1.5 °C (2.7 °F), from 7 to 20 feet if limited to 2 °C (3.6 °F), and by 60 to 70 feet if warming is allowed to reach 5 °C (9 °F) above preindustrial levels.<sup>37</sup> For context, almost all of the city of Miami is less than 25 feet above sea level, and the NCA4 stated that 13 million Americans would be at risk of migration due to 6 feet of sea level rise. Moreover, the CO<sub>2</sub> being absorbed by the ocean has resulted in changes in ocean chemistry due to acidification of a magnitude not seen in 65 million years,<sup>38</sup> putting many marine species—particularly calcifying species—at risk.<sup>39</sup>

The NCA4 found that it is very likely (greater than 90 percent likelihood) that by mid-century, the Arctic Ocean will be almost entirely free of sea ice by late summer for the first time in about 2 million years.<sup>40</sup> Coral reefs will be at risk for almost complete (99 percent)

losses with 1 °C (1.8 °F) of additional warming from today (2 °C or 3.6 °F since preindustrial). At this temperature, between 8 and 18 percent of animal, plant, and insect species could lose over half of the geographic area with suitable climate for their survival, and 7 to 10 percent of rangeland livestock would be projected to be lost.<sup>41</sup> The IPCC similarly found that climate change has caused substantial damages and increasingly irreversible losses in terrestrial, freshwater, and coastal and open ocean marine ecosystems.<sup>42</sup>

Every additional increment of temperature comes with consequences. For example, the half degree of warming from 1.5 to 2 °C (0.9 °F of warming from 2.7 °F to 3.6 °F) above preindustrial temperatures is projected on a global scale to expose 420 million more people to frequent extreme heatwaves and 62 million more people to frequent exceptional heatwaves (where heatwaves are defined based on a heat wave magnitude index which takes into account duration and intensity—using this index, the 2003 French heat wave that led to almost 15,000 deaths would be classified as an “extreme heatwave” and the 2010 Russian heatwave which led to thousands of deaths and extensive wildfires would be classified as “exceptional”). This half degree temperature increase has been projected to lead to an increase in the frequency of sea-ice-free Arctic summers from once in a hundred years to once in a decade. It could lead to 4 inches of additional sea level rise by the end of the century, exposing an additional 10 million people to risks of inundation, as well as increasing the probability of triggering instabilities in either the Greenland or Antarctic ice sheets. Between half a million and a million additional square miles of permafrost is projected to thaw over several centuries. Risks to food security is projected to increase from medium to high for several lower income regions in the Sahel, southern Africa, the Mediterranean, central Europe, and the Amazon. In addition to food security issues, this temperature increase is projected to have implications for human health in terms of increasing ozone concentrations, heatwaves, and vector-borne diseases (for example, expanding the range of the mosquitoes which carry dengue fever, chikungunya, yellow fever, and the Zika virus or the ticks which carry lyme, babesiosis, or Rocky Mountain Spotted Fever).<sup>43</sup> Moreover, every additional increment in

warming leads to larger changes in extremes, including the potential for events unprecedented in the observational record. Every additional degree is projected to intensify extreme precipitation events by about 7 percent. The peak winds of the most intense tropical cyclones (hurricanes) are projected to increase with warming. In addition to a higher intensity, the IPCC found that precipitation and frequency of rapid intensification of these storms has already increased, while the movement speed has decreased, and elevated sea levels have increased coastal flooding, all of which make these tropical cyclones more damaging.<sup>44</sup>

The NCA4 also evaluated a number of impacts specific to the U.S. Severe drought and outbreaks of insects like the mountain pine beetle have killed hundreds of millions of trees in the Western U.S. Wildfires have burned more than 3.7 million acres in 14 of the 17 years between 2000 and 2016, and Federal wildfire suppression costs were about a billion dollars annually.<sup>45</sup> The National Interagency Fire Center has documented U.S. wildfires since 1983, and the 10 years with the largest acreage burned have all occurred since 2004.<sup>46</sup> Wildfire smoke degrades air quality increasing health risks, and more frequent and severe wildfires due to climate change would further diminish air quality, increase incidences of respiratory illness, impair visibility, and disrupt outdoor activities, sometimes thousands of miles from the location of the fire. Meanwhile, sea level rise has amplified coastal flooding and erosion impacts, leading to salt water intrusion into coastal aquifers and groundwater, flooding streets, increasing storm surge damages, and threatening coastal property and ecosystems, requiring costly adaptive measures such as installation of pump stations, beach nourishment, property elevation, and shoreline armoring. Tens of billions of dollars of U.S. real estate could be below sea level by 2050 under some scenarios. Increased frequency and duration of drought will reduce agricultural productivity in some regions, accelerate depletion of water supplies for irrigation, and expand the distribution and incidence of pests and diseases for crops and livestock. The NCA4 also recognized that climate change can increase risks to national

<sup>35</sup> IPCC, 2013.

<sup>36</sup> Gulev, S.K., P.W. Thorne, J. Ahn, F.J. Dentener, C.M. Domingues, S. Gerland, D. Gong, D.S. Kaufman, H.C. Nnamchi, J. Quaas, J.A. Rivera, S. Sathyendranath, S.L. Smith, B. Trewin, K. von Schuckmann, and R.S. Vose, 2021: Changing State of the Climate System. In *Climate Change 2021: The Physical Science Basis*. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, New York, USA, pp. 287–422, doi:10.1017/9781009157896.004.

<sup>37</sup> IPCC, 2021.

<sup>38</sup> IPCC, 2018.

<sup>39</sup> IPCC, 2021.

<sup>40</sup> USGCRP, 2018.

<sup>41</sup> IPCC, 2018.

<sup>42</sup> IPCC, 2022.

<sup>43</sup> IPCC, 2018.

<sup>44</sup> IPCC, 2021.

<sup>45</sup> USGCRP, 2018.

<sup>46</sup> NIFC (National Interagency Fire Center). 2022. Total wildland fires and acres (1983–2020). Accessed November 2022. <https://www.nifc.gov/sites/default/files/document-media/TotalFires.pdf>.

security, both through direct impacts on military infrastructure, but also by affecting factors such as food and water availability that can exacerbate conflict outside U.S. borders. Droughts, floods, storm surges, wildfires, and other extreme events stress nations and people through loss of life, displacement of populations, and impacts on livelihoods.<sup>47</sup>

Some GHGs also have impacts beyond those mediated through climate change. For example, elevated concentrations of CO<sub>2</sub> stimulate plant growth (which can be positive in the case of beneficial species, but negative in terms of weeds and invasive species, and can also lead to a reduction in plant micronutrients)<sup>48</sup> and cause ocean acidification. Nitrous oxide depletes the levels of protective stratospheric ozone.<sup>49</sup> The tropospheric ozone produced by the reaction of methane in the atmosphere has harmful effects for human health and plant growth in addition to its climate effects.<sup>50</sup>

Ongoing EPA modeling efforts can shed further light on the distribution of climate change damages expected to occur within the U.S. Based on methods from over 30 peer-reviewed climate change impact studies, the EPA's Framework for Evaluating Damages and Impacts (FrEDI) model has developed estimates of the relationship between future temperature changes and physical and economic climate-driven damages occurring in specific U.S. regions across 20 impact categories, which span a large number of sectors of the U.S. economy.<sup>51</sup> Recent applications of FrEDI have advanced the collective

understanding about how future climate change impacts in these 20 sectors are expected to be substantial and distributed unevenly across U.S. regions.<sup>52</sup> Using this framework, the EPA estimates that under a global emission scenario with no additional mitigation, relative to a world with no additional warming since the baseline period (1986–2005), damages accruing to these 20 sectors in the contiguous U.S. occur mainly through increased deaths due to increasing temperatures, as well as climate-driven changes in air quality, transportation impacts due to coastal flooding resulting from sea level rise, increased mortality from wildfire emission exposure and response costs for fire suppression, and reduced labor hours worked in outdoor settings and buildings without air conditioning. The relative damages from long-term climate driven changes in these sectors are also projected vary from region to region: for example, the Southeast is projected to see some of the largest damages from sea level rise, the West Coast will see higher damages from wildfire smoke than other parts of the country, and the Northern Plains states are projected to see a higher proportion of damages to rail and road infrastructure. While the FrEDI framework currently quantifies damages for 20 sectors within the U.S., it is important to note that it is still a preliminary and partial assessment of climate impacts relevant to U.S. interests in a number of ways. For example, FrEDI does not reflect increased damages that occur due to interactions between different sectors impacted by climate change or all the ways in which physical impacts of climate change occurring abroad have spillover effects in different regions of the U.S. See the FrEDI Technical Documentation<sup>53</sup> for more details.

These scientific assessments, EPA analyses, and documented observed changes in the climate of the planet and of the U.S. present clear support regarding the current and future dangers of climate change and the importance of GHG emissions mitigation.

## IV. Recent Developments in Emissions Controls and the Electric Power Sector

### A. Introduction

In this section, we discuss background information about the electric power sector and then discuss several recent developments that are relevant for many of the controls that the EPA is proposing to determine qualify as the BSER for the fossil fuel-fired power plants that are the subject of this proposed rulemaking. After giving some general background, we first discuss CCS and explain that its cost has fallen significantly. Lower CCS costs are central for the EPA's proposals that CCS is the BSER for certain existing coal-fired EGUs and certain existing and new natural gas-fired combustion turbines. Second, we discuss natural gas co-firing for coal-fired EGUs and explain recent reductions in cost for this approach as well as its widespread availability and current and potential deployment within this source category. Third, we discuss hydrogen produced through low-emitting manufacturing, the availability of which is expected to increase significantly and the cost of which is expected to decline significantly in the near future. This increase in availability and decrease in cost is central for the EPA's proposal that low-GHG hydrogen is the BSER for certain existing and new natural gas-fired combustion turbines. Finally, we discuss key developments in the electric power sector that underly the expected operational methods for existing coal-fired EGUs and new and existing natural gas-fired combustion turbines. These key developments, in turn, are relevant for the regulatory design.

### B. Background

#### 1. Electric Power Sector

Electricity in the U.S. is generated by a range of technologies, and while the sector is rapidly evolving, the stationary combustion turbines and steam generating EGUs that are the subject of these proposed regulations still provide more than half of the electricity generated in the U.S. These EGUs fill many roles that are important to maintaining a reliable supply of electricity. For example, certain EGUs generate base load power, which is the portion of electricity loads that are continually present and typically

<sup>47</sup> USGCRP, 2018.

<sup>48</sup> Ziska, L., A. Crimmins, A. Auclair, S. DeGrasse, J.F. Garofalo, A.S. Khan, I. Loladze, A.A. Perez de Leon, A. Showler, J. Thurston, and I. Walls, 2016: Ch. 7: Food Safety, Nutrition, and Distribution. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. U.S. Global Change Research Program, Washington, DC, 189–216. <https://dx.doi.org/10.7930/J0ZP4417>.

<sup>49</sup> WMO (World Meteorological Organization), Scientific Assessment of Ozone Depletion: 2018, Global Ozone Research and Monitoring Project—Report No. 58, 588 pp., Geneva, Switzerland, 2018.

<sup>50</sup> Nolte, C.G., P.D. Dolwick, N. Fann, L.W. Horowitz, V. Naik, R.W. Pinder, T.L. Spero, D.A. Winner, and L.H. Ziska, 2018: Air Quality. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 512–538. doi: 10.7930/NCA4. 2018. CH13.

<sup>51</sup> EPA. (2021). Technical Documentation on the Framework for Evaluating Damages and Impacts (FrEDI). U.S. Environmental Protection Agency, EPA 430-R-21-004, available at <https://www.epa.gov/cira/fredi>. Documentation has been subject to both a public review comment period and an independent expert peer review, following EPA peer-review guidelines.

<sup>52</sup> (1) Sarofim, M.C., Martinich, J., Neumann, J.E., et al. (2021). A temperature binning approach for multi-sector climate impact analysis. *Climatic Change* 165. <https://doi.org/10.1007/s10584-021-03048-6>, (2) *Supplementary Material for the Regulatory Impact Analysis for the Supplemental Proposed Rulemaking, "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review,"* Docket ID No. EPA-HQ-OAR-2021-0317, September 2022, (3) *The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050*. Published by the U.S. Department of State and the U.S. Executive Office of the President, Washington DC, November 2021, (4) *Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change*, White Paper, Office of Management and Budget, April 2022.

<sup>53</sup> EPA. (2021). Technical Documentation on the Framework for Evaluating Damages and Impacts (FrEDI). U.S. Environmental Protection Agency, EPA 430-R-21-004, available at <https://www.epa.gov/cira/fredi>.

operate throughout all hours of the year. Other EGUs provide complementary generation to balance variable supply and demand resources. “Peaking units” provide capacity during hours of the highest daily, weekly, or seasonal net demand. Some EGUs also play important roles ensuring the reliability of the electric grid, including facilitating the regulation of frequency and voltage, providing “black start” capability in the event the grid must be repowered after a widespread outage, and providing reserve generating capacity<sup>54</sup> in the event of unexpected changes in the availability of other generators.

In general, the EGUs with the lowest operating costs are dispatched first, and, as a result, an inefficient EGU with high fuel costs will typically only operate if other lower-cost plants are unavailable or insufficient to meet demand. Units are also unavailable during both routine and unanticipated outages, which typically become more frequent as power plants age. These factors result in the mix of available generating capacity types (e.g., the share of capacity of each type of generating source) being substantially different than the mix of the share of total electricity produced by each type of generating source in a given season or year.

Generated electricity must be transmitted over networks<sup>55</sup> of high voltage lines to substations where power is stepped down to a lower voltage for local distribution. Within each of these transmission networks, there are multiple areas where the operation of power plants is monitored and controlled by regional organizations to ensure that electricity generation and load are kept in balance. In some areas, the operation of the transmission system is under the control of a single regional

operator;<sup>56</sup> in others, individual utilities<sup>57</sup> coordinate the operations of their generation and transmission to balance the system across their respective service territories.

## 2. Types of EGUs

In 2021, approximately 61 percent of net electricity was generated from the combustion of fossil fuels with natural gas providing 38 percent, coal providing 22 percent, and petroleum products such as fuel oil providing an additional 1 percent.<sup>58</sup> Fossil fuel-fired EGUs include the steam generating units and stationary combustion turbines that are the subject of these proposed regulations.

There are two forms of fossil fuel-fired electric utility steam generating units: utility boilers and those that use gasification technology (i.e., integrated gasification combined cycle (IGCC) units). While coal is the most common fuel for fossil fuel-fired utility boilers, natural gas can also be used as a fuel in these EGUs and many existing coal- and oil-fired utility boilers have repowered as natural gas-fired units. An IGCC unit gasifies fuel—typically coal or petroleum coke—to form a synthetic gas (or syngas) composed of carbon monoxide (CO) and hydrogen (H<sub>2</sub>), which can be combusted in a combined cycle system to generate power. The heat created by these technologies produces high-pressure steam that is released to rotate turbines, which, in turn, spin an electric generator.

Stationary combustion turbine EGUs (most commonly natural gas-fired) use one of two configurations: combined cycle or simple cycle combustion turbines. Combined cycle units have two generating components (i.e., two cycles) operating from a single source of heat. Combined cycle units first generate power from a combustion turbine (i.e., the combustion cycle) directly from the heat of burning natural gas or other fuel. The second cycle reuses the waste heat from the combustion turbine engine, which is routed to a heat recovery steam generator (HRSG) that generates steam, which is then used to produce additional power using a steam turbine (i.e., the steam cycle). Combining these generation cycles increases the overall

efficiency of the system. Combined cycle units that fire mostly natural gas are commonly referred to as natural gas combined cycle (NGCC) units, and, with greater efficiency, are utilized at higher capacity factors to provide base load or intermediate power. An EGU’s capacity factor indicates a power plant’s electricity output as a percentage of its total generation capacity. Simple cycle combustion turbines only use a combustion turbine to produce electricity (i.e., there is no heat recovery or steam cycle). These less-efficient combustion turbines are generally utilized at non-base load capacity factors and contribute to reliable operations of the grid during periods of peak demand or provide flexibility to support increased generation from variable energy sources.<sup>59</sup>

Other generating sources produce electricity by harnessing kinetic energy from flowing water, wind, or tides, thermal energy from geothermal wells, or solar energy primarily through photovoltaic solar arrays. Spurred by a combination of declining costs, consumer preferences, and government policies, the capacity of these renewable technologies is growing, and when considered with existing nuclear energy, accounted for nearly 41 percent of the overall net electricity supply in 2022. Many projections show this share growing over time. For example, the EPA’s Power Sector Modeling Platform v6 Using the Integrated Planning Model post-IRA 2022 reference case (i.e., the EPA’s projections of the power sector, which includes representation of the IRA absent further regulation) shows zero-emitting sources reaching 76 percent of electricity generation by 2040. (See section IV.F of this preamble and the accompanying RIA for additional discussion of projections for the power sector). These projections are consistent with power company announcements. For example, as the Edison Electric Institute (EEI) stated in pre-proposal public comments

<sup>59</sup> Non-dispatchable renewable energy (electrical output cannot be used at any given time to meet fluctuating demand) is both variable and intermittent and is often referred to as intermittent renewable energy. The variability aspect results from predictable changes in electric generation (e.g., solar not generating electricity at night) that often occur on longer time periods. The intermittent aspect of renewable energy results from inconsistent generation due to unpredictable external factors outside the control of the owner/operator (e.g., imperfect local weather forecasts) that often occur on shorter time periods. Since renewable energy fluctuates over multiple time periods, grid operators are required to adjust forecast and real time operating procedures. As more renewable energy is added to the electric grid and generation forecasts improve, the intermittency of renewable energy is reduced.

<sup>54</sup> Generation and capacity are commonly reported statistics with key distinctions. Generation is the production of electricity and is a measure of an EGU’s actual output while capacity is a measure of the maximum potential production of an EGU under certain conditions. There are several methods to calculate an EGU’s capacity, which are suited for different applications of the statistic. Capacity is typically measured in megawatts (MW) for individual units or gigawatts (1 GW = 1,000 MW) for multiple EGUs. Generation is often measured in kilowatt-hours (kWh), megawatt-hours (MWh), or gigawatt-hours (1 GWh = 1 million kWh).

<sup>55</sup> The three network interconnections are the Western Interconnection, comprising the western parts of both the U.S. and Canada (approximately the area to the west of the Rocky Mountains), the Eastern Interconnection, comprising the eastern parts of both the U.S. and Canada (except those parts of Eastern Canada that are in the Quebec Interconnection), and the Texas Interconnection (which encompasses the portion of the Texas electricity system commonly known as the Electric Reliability Council of Texas (ERCOT)). See map of all NERC interconnections at <https://www.nerc.com/AboutNERC/keyplayers/PublishingImages/NERC%20Interconnections.pdf>.

<sup>56</sup> For example, PJM Interconnection, LLC, New York Independent System Operator (NYISO), Midwest Independent System Operator (MISO), California Independent System Operator (CAISO), etc.

<sup>57</sup> For example, Los Angeles Department of Power and Water, Florida Power and Light, etc.

<sup>58</sup> U.S. Energy Information Administration (EIA). *Electric Power Monthly, Table 1.1 and Form EIA-860M*, July 2022. <https://www.eia.gov/electricity/data/php>.

submitted to the regulatory docket: “Fifty EEI members have announced forward-looking carbon reduction goals, two-thirds of which include a net-zero by 2050 or earlier equivalent goal, and members are routinely increasing the ambition or speed of their goals or altogether transforming them into net-zero goals . . . EEI’s member companies see a clear path to continued emissions reductions over the next decade using current technologies, including nuclear power, natural gas-based generation, energy demand efficiency, energy storage, and deployment of new renewable energy—especially wind and solar—as older coal-based and less-efficient natural gas-based generating units retire.”<sup>60</sup>

### C. CCS

One of the key GHG reduction technologies upon which BSER determinations are founded in this proposal is CCS—a technology that can capture and permanently store CO<sub>2</sub> from EGUs. CCS has three major components: CO<sub>2</sub> capture, transportation, and sequestration/storage. Generally, the capture processes most applicable to combustion turbines and utility boilers remove CO<sub>2</sub> from the exhaust gas after combustion. The exhaust gases from most combustion processes are at atmospheric pressure with relatively low concentrations of CO<sub>2</sub>. Most post-combustion capture systems utilize liquid solvents (most commonly amine-based) in a scrubber column to absorb the CO<sub>2</sub> from the flue gas.<sup>61</sup> The CO<sub>2</sub>-rich solvent is then regenerated by heating the solvent to release the captured CO<sub>2</sub>. The high purity CO<sub>2</sub> is then compressed and transported, generally through pipelines, to a site for geologic sequestration (*i.e.*, the long-term containment of CO<sub>2</sub> in subsurface geologic formations).<sup>62</sup> Process improvements learned from earlier deployments of CCS, the availability of better solvents, and other advances have resulted in a decrease in the cost of CCS in recent years. The cost of CO<sub>2</sub> capture, excluding any tax credits, from coal-fired power generation is projected to fall by 50 percent by 2025 compared to

<sup>60</sup> Edison Electric Institute (EEI). (November 18, 2022). *Clean Air Act Section 111 Standards and the Power Sector: Considerations and Options for Setting Standards and Providing Compliance Flexibility to Units and States*. Pg. 5. Public comments submitted to the EPA’s pre-proposal rulemaking, Docket ID No. EPA-HQ-OAR-2022-0723.

<sup>61</sup> Post-combustion CO<sub>2</sub> capture is most common, but as discussed later in this preamble, there are also pre-combustion CO<sub>2</sub> capture options available and applicable to the power sector.

<sup>62</sup> 40 CFR 261.4(h).

2010.<sup>63</sup> In addition, new policies such as the IRA, enacted in 2022, support the deployment of CCS technology and will further reduce the cost of implementing CCS by extending and increasing the tax credit for CCS under Internal Revenue Code section 45Q.

There are several examples of the application of CCS at EGUs, some of which are noted here with further detail provided in section VII.F.3.b.iii(A) of this preamble. These include SaskPower’s Boundary Dam Unit 3, a 110-MW lignite-fired unit in Saskatchewan, Canada, which has achieved CO<sub>2</sub> capture rates of 90 percent using an amine-based post-combustion capture system retrofitted to the existing steam generating unit.<sup>64</sup> Amine-based carbon capture has also been demonstrated at AES’s Warrior Run (Cumberland, Maryland) and Shady Point (Panama, Oklahoma) coal-fired power plants.<sup>65</sup>

CCS has also been successfully applied to an existing combined cycle combustion turbine EGU at the Bellingham Energy Center in south central Massachusetts, and other projects are in different stages of deployment. The 40-MW slipstream capture facility at the Bellingham Energy Center operated from 1991 to 2005 and captured 85 to 95 percent of the CO<sub>2</sub> in the slipstream.<sup>66</sup> In Scotland, the proposed 900-MW Peterhead Power Station combined cycle EGU with CCS is in the planning stages of deployment and will have the potential to capture 90 percent of its CO<sub>2</sub> emissions.<sup>67</sup> Moreover, an 1,800-MW combined cycle EGU that will be constructed in West Virginia and will utilize CCS has been announced. The project is planned to begin operation later this decade, and

<sup>63</sup> Technology Readiness and Costs of CCS (2021). Global CCS Institute. <https://www.globalccsinstitute.com/wp-content/uploads/2021/03/Technology-Readiness-and-Costs-for-CCS-2021-1.pdf>.

<sup>64</sup> Giannaris, S., *et al.* Proceedings of the 15th International Conference on Greenhouse Gas Control Technologies (March 15–18, 2021). *SaskPower’s Boundary Dam Unit 3 Carbon Capture Facility—The Journey to Achieving Reliability*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3820191](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3820191).

<sup>65</sup> Dooley, J.J., *et al.* (2009). “An Assessment of the Commercial Availability of Carbon Dioxide Capture and Storage Technologies as of June 2009.” U.S. DOE, Pacific Northwest National Laboratory, under Contract DE-AC05-76RL01830.

<sup>66</sup> U.S. Department of Energy (DOE). Carbon Capture Opportunities for Natural Gas Fired Power Systems. <https://www.energy.gov/fecm/articles/carbon-capture-opportunities-natural-gas-fired-power-systems>.

<sup>67</sup> Buli, N. (2021, May 10). SSE, Equinor plan new gas power plant with carbon capture in Scotland. *Reuters*. <https://www.reuters.com/business/sustainable-business/sse-equinor-plan-new-gas-power-plant-with-carbon-capture-scotland-2021-05-11/>.

its economic feasibility was partially credited to the expanded IRC section 45Q tax credit for sequestered CO<sub>2</sub> provided through the IRA.<sup>68</sup>

In developing these proposals, the EPA reviewed the current state of CCS technology and costs, including the use of CCS with both steam generating units and combustion turbines. This review is reflected in the BSER discussions later in this preamble and is further detailed in the accompanying RIA and technical support documents titled, *GHG Mitigation Measures for Steam Generating Units and GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines*. The three documents are included in the rulemaking docket.

### D. Natural Gas Co-Firing

For a coal-fired steam generating unit, the substitution of natural gas for some of the coal so that the unit fires a combination of coal and natural gas is known as “natural gas co-firing.” Most existing coal-fired steam generating units can be modified to co-fire natural gas in any desired proportion with coal. Generally, the modification of existing boilers to enable or increase natural gas firing typically involves the installation of new gas burners and related boiler modifications as well as the construction of natural gas supply pipelines. In recent years, the cost of natural gas co-firing has declined because the expected difference between coal and gas prices has decreased to about \$1/MMBtu and recent analyses support lower capital costs for modifying existing boilers to co-fire with natural gas, as discussed in section X.D.2 of this preamble.

In developing these proposals, the EPA reviewed in detail the current state of natural gas co-firing technology and costs. This review is reflected in the BSER discussions later in this preamble and is further detailed in the accompanying RIA and *GHG Mitigation Measures for Steam Generating Units* TSD. Both documents are included in the rulemaking docket.

### E. Hydrogen Co-Firing

Industrial combustion turbines have been burning byproduct fuels containing large percentages of hydrogen for decades, and recently, utility combustion turbines in the power sector have begun to co-fire hydrogen as

<sup>68</sup> Competitive Power Ventures (2022). *Multi-Billion Dollar Combined Cycle Natural Gas Power Station with Carbon Capture Announced in West Virginia*. Press Release. September 16, 2022. <https://www.cpv.com/2022/09/16/multi-billion-dollar-combined-cycle-natural-gas-power-station-with-carbon-capture-announced-in-west-virginia/>.

a fuel to generate electricity. Hydrogen contains no carbon, and when combusted in a turbine, produces zero direct CO<sub>2</sub> emissions. However, as discussed in section IV.F.3 of this preamble, the manufacture of hydrogen, depending on the method of production, can generate GHG emissions. As noted previously, there has been a growing interest in the use of hydrogen as a fuel for combustion turbines to generate electricity. Many models of new utility combustion turbines have demonstrated the ability to co-fire up to 30 percent hydrogen and developers are working toward models that will be ready to combust 100 percent hydrogen by 2030. Furthermore, several utilities are co-firing hydrogen in test burns; and some have announced plans to move to combusting 100 percent hydrogen in the 2035–2045 timeframe. Specifically, the Los Angeles Department of Water and Power's (LADWP) Scattergood Modernization project includes plans to have a hydrogen-ready combustion turbine in place when the 346-MW combined cycle plant (potential for up to 830 MW) begins initial operations in 2029. LADWP foresees the plant running on 100 percent electrolytic hydrogen by 2035.<sup>69</sup> In addition, LADWP also has an agreement in place to purchase electricity from the Intermountain Power Agency project (IPA) in Utah. IPA is replacing an existing 1.8-GW coal-fired EGU with an 840-MW combined cycle turbine that developers expect to initially co-fire 30 percent electrolytic hydrogen in 2025 and 100 percent hydrogen by 2045.<sup>70</sup> In Florida, NextEra Energy has announced plans to operate 16 GW of existing natural gas-fired combustion turbines with electrolytic hydrogen as part of the utility's Zero Carbon Blueprint to be carbon-free by 2045.<sup>71</sup> Duke Energy Corporation, which operates 33 gas-fired plants across the Midwest, the Carolinas, and Florida, has outlined plans for full hydrogen capabilities throughout its future turbine fleet: "All natural gas units built after 2030 are assumed to be convertible to full hydrogen capability. After 2040, only peaking units that are fully hydrogen capable are assumed to be built."<sup>72</sup>

In addition to those three utility announcements, several merchant generators operating in wholesale markets are also signaling their intent to ramp up hydrogen co-firing levels after initial 30 percent co-firing phases. The Cricket Valley Energy Center (CVEC) in New York is retrofitting its combined cycle power plant starting in 2022 as a first step toward the conversion to a 100 percent hydrogen fuel capable plant. CVEC announcements did not have specific dates for 100 percent electrolytic hydrogen firing but indicated in its announcement that New York has mandated achieving a zero-emission electricity sector by 2040.<sup>73</sup> The Long Ridge Energy Terminal in Ohio, which has successfully co-fired a 5 percent hydrogen blend at its 485-MW combined cycle plant, noted its technology has the capability to transition to 100 percent hydrogen over time as its low-GHG fuel supply becomes available.<sup>74</sup> Constellation Energy, which owns 23 natural gas-fired or dual fuel generators (8.6 GW), is exploring electrolytic hydrogen co-firing across its fleet. It estimated costs for blend levels in the range of 60–100 percent at approximately \$100/kW for retrofits and noted that equipment manufacturers are planning 100 percent hydrogen combustion-ready turbines before 2030.<sup>75</sup>

In both the IJIA and the IRA, Congress provided extensive support for the development of hydrogen produced through low-GHG methods. This support includes investment in infrastructure through the IJIA, and the provision of tax credits in the IRA to incentivize the manufacture of hydrogen through low GHG-emitting methods. These incentives are fueling interest in co-firing hydrogen and creating expectations that the availability of low-cost and low-GHG hydrogen will increase in the coming years. These projections are based on a combination of economies of scale as low-GHG production methods expand, the increasing availability of low-cost electricity—largely powered by renewable energy sources and potentially nuclear energy—and learning by doing as more turbine projects are developed.

In developing these proposals, the EPA reviewed in detail the current state of hydrogen co-firing technology and costs. This review is reflected in the BSER discussions later in this preamble and is further detailed in the accompanying RIA and technical support document titled, *Hydrogen in Combustion Turbine Electric Generating Units*. Both documents are included in the rulemaking docket.

#### F. Recent Changes in the Power Sector

##### 1. Overview

The electric power sector is experiencing a prolonged period of transition and structural change. Since the generation of electricity from coal-fired power plants peaked nearly two decades ago, the power sector has changed at a rapid pace. Today, natural gas-fired power plants provide the largest share of net generation, coal-fired power plants provide a significantly smaller share than in the recent past, renewable energy provides a steadily increasing share, and as new technologies enter the marketplace, power producers continue to replace aging assets with more efficient and lower cost alternatives.

These developments have significant implications for the types of controls that the EPA proposes to determine qualify as the BSER for different types of fossil fuel-fired EGUs. For example, many utilities and power plant operators have announced plans to voluntarily cease operating coal-fired power plants in the near future, in some cases after operating them at low levels for a several-year period. Industry stakeholders have requested that the EPA structure this rule to avoid imposing costly control obligations on coal-fired power plants that have announced plans to voluntarily cease operations, and the EPA proposes to accommodate those requests. In addition, the EPA recognizes that utilities and power plant operators are building new natural gas-fired combustion turbines with plans to operate them at varying levels of utilization, in coordination with other existing and expected new energy sources. These patterns of operation are important for the type of controls that the EPA is proposing as the BSER for these turbines.

This section discusses the recent trends in the power sector. It also includes a summary of the provisions and incentives included in recent Federal legislation that will impact the power sector as well as State actions and commitments by power producers to reduce GHG emissions. The section

<sup>69</sup> [https://clkrep.lacity.org/online/docs/2023/23-0039\\_rpt\\_DWP\\_02-03-2023.pdf](https://clkrep.lacity.org/online/docs/2023/23-0039_rpt_DWP_02-03-2023.pdf).

<sup>70</sup> <https://www.forbes.com/sites/mitsubishiheavyindustries/2021/07/30/eager-to-become-hydrogen-ready-power-plants-turn-to-dual-fuel-turbines/?sh=38ddea053476>.

<sup>71</sup> <https://www.nexteraenergy.com/content/dam/nee/us/en/pdf/NextEraEnergyZeroCarbonBlueprint.pdf>.

<sup>72</sup> <https://www.duke-energy.com/media/PDFs/our-company/Climate-Report-2022.pdf>.

<sup>73</sup> <https://www.cricketvalley.com/news/cricket-valley-energy-center-and-ge-sign-agreement-to-help-reduce-carbon-emissions-in-new-york-with-green-hydrogen-fueled-power-plant/>.

<sup>74</sup> GE-powered gas-fired plant in Ohio now burning hydrogen ([power-eng.com](https://www.power-eng.com)).

<sup>75</sup> Constellation Energy Corporation's Comments on EPA Draft White Paper: Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units Docket ID No. EPA-HQ-OAR-2022-0289-0022.



concludes with projections of future trends in power sector generation.

## 2. Broad Trends Within the Power Sector

For more than a decade, the power sector has experienced substantial transition and structural change, both in terms of the mix of generating capacity and in the share of electricity generation supplied by different types of EGUs. These changes are the result of multiple factors, including normal replacements of older EGUs; changes in electricity demand across the broader economy; growth and regional changes in the U.S. population; technological improvements in electricity generation from both existing and new EGUs; changes in the prices and availability of different fuels; State and Federal policy; the preferences and purchasing behaviors of end-use electricity consumers; and substantial growth in electricity generation from renewable sources.

One of the most important developments of this transition has been the evolving economics of the power sector. Specifically, the existing fleet of coal-fired EGUs continues to age and become more costly to maintain and operate. At the same time, the supply and availability of natural gas has increased significantly, and its price has held relatively low. For the first time, in April 2015, natural gas surpassed coal in monthly net electricity generation and since that time has maintained its position as the primary fossil fuel for base load energy generation, for peaking applications, and for balancing renewable generation.<sup>76</sup> Additionally, there has been increased generation from investments in zero- and low-GHG emission energy technologies spurred by technological advancements, declining costs, State and Federal policies, and most recently, the IJA and the IRA. For example, the IJA provides investments and other policies to help commercialize, demonstrate, and deploy technologies such as small modular nuclear reactors, long-duration energy storage, regional clean hydrogen hubs, carbon capture and storage and associated infrastructure, advanced geothermal systems, and advanced distributed energy resources (DER) as well as more traditional wind and solar resources. The IRA provides numerous tax and other incentives to directly spur deployment of clean energy technologies. Particularly relevant to these proposals, the incentives in the

<sup>76</sup> U.S. Energy Information Administration (EIA). *Monthly Energy Review and Short-Term Energy Outlook*, March 2016. <https://www.eia.gov/todayinenergy/detail.php?id=25392>.

IRA,<sup>77</sup> which are discussed in detail later in this section of the preamble, support the expansion of technologies, such as CCS and hydrogen technologies, that reduce GHG emissions from fossil-fired units.

The ongoing transition of the power sector is illustrated by a comparison of data between 2010 and 2021. In 2010, approximately 70 percent of the electricity provided to the U.S. grid was produced through the combustion of fossil fuels, primarily coal and natural gas, with coal accounting for the largest single share. By 2021, fossil fuel net generation was approximately 60 percent, less than the share in 2010 despite electricity demand remaining relatively flat over this same time period. Moreover, the share of fossil generation supplied by coal-fired EGUs fell from 46 percent in 2010 to 23 percent in 2021 while the share supplied by natural gas-fired EGUs rose from 23 to 37 percent during the same period. In absolute terms, coal-fired generation declined by 51 percent while natural gas-fired generation increased by 64 percent. This reflects both the increase in natural gas capacity as well as an increase in the utilization of new and existing gas-fired EGUs. The combination of wind and solar generation also grew from 2 percent of the electric power sector mix in 2010 to 12 percent in 2021.<sup>78</sup>

The broad trends throughout the power sector can also be seen in the number of commitments and announced plans of many EGU owners and operators across the industry to decarbonize—spanning all types of companies in all locations. Moreover, State governments, which traditionally regulate investment decisions regarding electricity generation, have implemented their own policies to reduce GHG emissions from power generation.

Additional analysis of the utility power sector, including projections of future power sector behavior and the impacts of these proposed rules, is discussed in more detail in section XV of this preamble, in the accompanying RIA, and in the *Power Sector Trends* technical support document (TSD). The latter two documents are available in the rulemaking docket. Consistent with

<sup>77</sup> U.S. Department of Energy (DOE). August 2022. *The Inflation Reduction Act Drives Significant Emissions Reductions and Positions America to Reach Our Climate Goals*. [https://www.energy.gov/sites/default/files/2022-08/8.18%20InflationReductionAct\\_Factsheet\\_Final.pdf](https://www.energy.gov/sites/default/files/2022-08/8.18%20InflationReductionAct_Factsheet_Final.pdf).

<sup>78</sup> U.S. Energy Information Administration (EIA). *Annual Energy Review*, table 8.2b Electricity net generation: electric power sector. <https://www.eia.gov/totalenergy/data/annual/>.

analyses done by other energy modelers, the RIA and TSD demonstrate that the sector trend of moving away from coal-fired generation is likely to continue and that non-emitting technologies may eventually displace certain natural gas-fired combustion turbines.

## 3. Trends in Coal-Fired Generation

Coal-fired steam generating units have historically been the nation's foremost source of electricity, but coal-fired generation has declined steadily since its peak approximately 20 years ago.<sup>79</sup> Construction of new coal-fired steam generating units was at its highest between 1967 and 1986, with approximately 188 GW (or 9.4 GW per year) of capacity added to the grid during that 20-year period.<sup>80</sup> The peak annual capacity addition was 14 GW, which was added in 1980. These coal-fired steam generating units operated as base load units for decades. However, beginning in 2005, the U.S. power sector—and especially the coal-fired fleet—began experiencing a period of transition that continues today. Many of the older coal-fired steam generating units built in the 1960s, 1970s, and 1980s have retired and/or have experienced significant reductions in net generation due to cost pressures and other factors. Some of these coal-fired steam generating units repowered with combustion turbines and natural gas.<sup>81</sup> And with no new coal-fired steam generating units commencing construction in more than a decade—and with the EPA unaware of any plans by any companies to construct a new coal-fired EGU—much of the fleet that remains is aging, expensive to operate and maintain, and increasingly uncompetitive relative to other sources of generation in many parts of the country.

Since 2010, the power sector's total installed capacity<sup>82</sup> has increased by

<sup>79</sup> U.S. Energy Information Administration (EIA). *Today in Energy. Natural gas expected to surpass coal in mix of fuel used for U.S. power generation in 2016*. March 2016. <https://www.eia.gov/todayinenergy/detail.php?id=25392>.

<sup>80</sup> U.S. Energy Information Administration (EIA). *Electric Generators Inventory, Form EIA-860M, Inventory of Operating Generators and Inventory of Retired Generators*, March 2022. <https://www.eia.gov/electricity/data/eia860m/>.

<sup>81</sup> U.S. Energy Information Administration (EIA). *Today in Energy. More than 100 coal-fired plants have been replaced or converted to natural gas since 2011*. August 2020. <https://www.eia.gov/todayinenergy/detail.php?id=44636>.

<sup>82</sup> This includes generating capacity at EGUs primarily operated to supply electricity to the grid and combined heat and power (CHP) facilities classified as Independent Power Producers and excludes generating capacity at commercial and industrial facilities that does not operate primarily as an EGU. Natural gas information reflects data for all generating units using natural gas as the primary

144 GW (14 percent), while coal-fired steam generating unit capacity has declined by 107 GW. This reduction in coal-fired steam generating unit capacity was offset by an increase in total installed wind capacity of 93 GW, natural gas capacity of 84 GW, and an increase in utility-scale solar capacity of 60 GW during the same period. Additionally, significant amounts of DER solar (33 GW) were also added. Two-thirds or more of these changes were in the most recent 6 years of this period. From 2015–2021, coal capacity was reduced by 70 GW and this reduction in capacity was offset by a net increase of 60 GW of wind capacity, 52 GW of natural gas capacity, and 47 GW of utility-scale solar capacity. Additionally, 23 GW of DER solar were also added from 2015 to 2021.

At the end of 2021, there were more than 500 EGUs totaling 212 GW of coal-fired capacity remaining in the U.S. Although much of the fleet of coal-fired steam generating units has historically operated as base load, there can be notable differences in design and operation across various facilities. For example, coal-fired steam generating units smaller than 100 MW comprise 18 percent of the total number of coal-fired units, but only 2 percent of total coal-fired capacity.<sup>83</sup> Moreover, average annual capacity factors for coal-fired steam generating units have declined from 67 to 49 percent since 2010,<sup>84</sup> indicating that a larger share of units are operating in non-base load fashion.

Older power plants also tend to become uneconomic over time as they become more costly to maintain and operate,<sup>85</sup> especially when competing for dispatch against newer and more efficient generating technologies that have lower operating costs. The average coal-fired power plant that retired between 2015 and 2021 was more than 50 years old, and 65 percent of the remaining fleet of coal-fired steam generating units will be 50 years old or more within a decade.<sup>86</sup> To further

illustrate this trend, the existing coal-fired steam generating units older than 40 years represent 71 percent (154 GW)<sup>87</sup> of the total remaining capacity. In fact, more than half (118 GW) of the coal-fired steam generating units still operating have already announced retirement dates prior to 2040.<sup>88</sup> As discussed further in this section, projections anticipate that this trend will continue.

The reduction in coal-fired generation by electric utilities is also evident in data for annual U.S. coal production, which reflects reductions in international demand as well. In 2008, annual coal production peaked at nearly 1,200 million short tons (MMst) followed by sharp declines in 2015 and 2020.<sup>89</sup> In 2015, less than 900 MMst were produced, and in 2020, the total dropped to 535 MMst, the lowest output since 1965.

#### 4. Trends in Natural Gas-Fired Generation

In the lower 48 states, most combustion turbine EGUs burn natural gas, and some have the capability to fire distillate oil as backup for periods when natural gas is not available, such as when residential demand for natural gas is high during the winter. Areas of the country without access to natural gas often use distillate oil or some other locally available fuel. Combustion turbines have the capability to burn either gaseous or liquid fossil fuels, including but not limited to kerosene, naphtha, synthetic gas, biogases, liquified natural gas (LNG), and hydrogen.

Natural gas consists primarily of methane, and after the raw gas is extracted from the ground, it is processed to remove impurities and to separate the methane from other gases and natural gas liquids to produce pipeline quality gas.<sup>90</sup> This gas is sent to intermediate storage facilities prior to being piped through transmission feeder lines to a distribution network on its path to storage facilities or end users.

includes generators that came online as far back as 1915.

<sup>87</sup> U.S. Energy Information Administration (EIA). Electric Generators Inventory, Form-860M, Inventory of Operating Generators and Inventory of Retired Generators. August 2022. <https://www.eia.gov/electricity/data/eia860m/>.

<sup>88</sup> U.S. Environmental Protection Agency. National Electric Energy Data System (NEEDS) v6. October 2022. <https://www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs>.

<sup>89</sup> U.S. Energy Information Administration (EIA). Annual Coal Report. Table ES-1. October 2022. <https://eia.gov/coal/annual/pdf/tableES1.pdf>.

<sup>90</sup> U.S. Energy Information Administration (EIA). Natural Gas Explained. December 2022. <https://www.eia.gov/energyexplained/natural-gas/>.

During the past 20 years, advances in hydraulic fracturing (*i.e.*, fracking) and horizontal drilling techniques have opened new regions of the U.S. to gas exploration.

According to the U.S. Energy Information Administration (EIA), annual natural gas marketed production in the U.S. remained consistent at approximately 20 trillion cubic feet (Tcf) from the 1970s to the early 2000s. However, since 2005, annual natural gas marketed production has steadily increased and approached 35 Tcf in 2021, which is an average of approximately 94.6 billion cubic feet per day.<sup>91</sup> Thirty-four states produce natural gas with Texas (24.6 percent), Pennsylvania (21.8 percent), Louisiana (9.9 percent), West Virginia (7.4 percent), and Oklahoma (6.7 percent) accounting for approximately 70 percent of total production. Natural gas production exceeded consumption in the U.S. for the first time in 2017.

As the production of natural gas has increased, the annual average price has declined during the same period.<sup>92</sup> In 2008, U.S. natural gas prices peaked at \$13.39 per million British thermal units (\$/MMBtu) for residential customers. By 2020, the price was \$10.45/MMBtu. The decrease in average annual natural gas prices can also be seen in city gate prices (*i.e.*, a point or measuring station where natural gas is transferred from long-distance pipelines to a local distribution company), which peaked in 2008 at \$8.85/MMBtu. By 2020, city gate prices were \$3.30/MMBtu. An equivalent \$/MMBtu basis is a common way to compare natural gas and coal fuel prices. For example, the price of Henry Hub natural gas in July 2022 was \$7.39/MMBtu while the spot price of Central Appalachian coal was \$7.25/MMBtu for the same month. However, this method of fuel price comparison based on equivalent energy content does not reflect differences in energy conversion efficiency (*i.e.*, heat rate) and other factors among different types of generators. Because natural gas-fired combustion turbines are more efficient than coal-fired steam units, any fuel cost comparison should include an efficiency basis (dollar per megawatt-hour) to the equivalent energy content. For illustrative purposes, an EIA comparison based on this method showed that the Henry Hub natural gas

<sup>91</sup> U.S. Energy Information Administration (EIA). Natural gas explained. Where our natural gas comes from. <https://www.eia.gov/energyexplained/natural-gas/where-our-natural-gas-comes-from.php>.

<sup>92</sup> U.S. Energy Information Administration (EIA). Natural Gas Annual, September 2021. <https://www.eia.gov/energyexplained/natural-gas/prices.php>.

fossil heat source unless otherwise stated. This includes combined cycle, simple cycle, steam, and miscellaneous (<1 percent).

<sup>83</sup> U.S. Environmental Protection Agency. National Electric Energy Data System (NEEDS) v6. October 2022. <https://www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs>.

<sup>84</sup> U.S. Energy Information Administration (EIA). Electric Power Annual 2021, table 1.2.

<sup>85</sup> U.S. Energy Information Administration (EIA). U.S. coal plant retirements linked to plants with higher operating costs. December 2019. <https://www.eia.gov/todayinenergy/detail.php?id=42155>.

<sup>86</sup> eGRID 2020 (January 2022 release from EPA eGRID website). Represents data from generators that came online between 1950 and 2020 (inclusive); a 71-year period. Full eGRID data



price in July 2022 was \$59.18/MWh and the price for Central Appalachian coal was \$78.25/MWh for the same month.<sup>93</sup>

There has been significant expansion of the natural gas-fired EGU fleet since 2000, coinciding with efficiency improvements of combustion turbine technologies, increased availability of natural gas, increased demand for flexible generation to support the expanding capacity of renewable energy resources, and declining costs for all three elements. According to data from EIA, annual capacity additions for natural gas-fired EGUs peaked between 2000 and 2006, with more than 212 GW added to the grid during this period. Of this total, approximately 147 GW (70 percent) were combined cycle capacity and 65 GW were simple cycle capacity.<sup>94</sup> From 2007 to 2021, more than 125 GW of capacity were constructed and approximately 78 percent of that total were combined cycle EGUs. This figure represents an average of almost 4.2 GW of new combustion turbine generation capacity per year. In 2021, the net summer capacity of combustion turbine EGUs totaled 413 GW, with 281 GW being combined cycle generation and 132 GW being simple cycle generation.

This trend away from coal to natural gas is also reflected in comparisons of annual capacity factors, sizes, and ages of affected EGUs. For example, the annual average capacity factors for natural gas-fired units increased from 28 to 37 percent between 2010 and 2021. And compared with the fleet of coal-fired steam generating units, the natural gas fleet is generally smaller and newer. While 67 percent of the coal-fired steam generating unit fleet capacity is over 500 MW per unit, 75 percent of the gas fleet is between 50 and 500 MW per unit. In terms of the age of the generating units, nearly 50 percent of the natural gas capacity has been in service less than 15 years.<sup>95</sup>

As explained in greater detail later in this preamble and in the accompanying RIA, future capacity projections for natural gas-fired combustion turbines differ from those highlighted in recent

<sup>93</sup> U.S. Energy Information Administration (EIA). *Electric Monthly Update*. September 23, 2022. Report derived from Bloomberg Energy. EIA notes that the competition between coal and natural gas to produce electricity is complex, involving delivered prices and emission costs, the terms of fuel supply contracts, and the workings of fuel markets.

<sup>94</sup> U.S. Energy Information Administration (EIA). *Electric Generators Inventory, Form EIA-860M, Inventory of Operating Generators and Inventory of Retired Generators*, July 2022. <https://www.eia.gov/electricity/data/eia860m/>.

<sup>95</sup> National Electric Energy Data System (NEEDS) v.6.

historical trends. The largest source of new generation is from renewable energy and projections show that total natural gas-fired combined cycle capacity is likely to decline after 2030 in response to increased generation from renewables, energy storage, and other technologies, as discussed in section IV.I. Approximately, 86 percent of capacity additions in 2023 are expected to be from non-emitting generation resources including solar, wind, nuclear, and energy storage.<sup>96</sup> The IRA is likely to accelerate this trend, which is also expected to impact the operation of certain combustion turbines. For example, as the electric output from additional non-emitting generating sources fluctuates daily and seasonally, flexible low and intermediate load combustion turbines will be needed to support these variable sources and provide reliability to the grid. This requires the ability to start and stop quickly and change load more frequently.

#### 5. Trends in Renewable Generation

Renewable sources of electric generation—especially solar and wind—have expanded in the U.S. during the past decade. This growth has coincided with a reduction in the costs of the technologies, supportive State and Federal policies, and increased consumer demand for low-GHG electricity. In 2021, renewable energy sources produced approximately 20 percent of the nation's net generation, led by wind (9.2 percent), hydroelectric (6.3 percent), solar (2.8 percent), and other sources such as geothermal and biomass (1.7 percent).<sup>97</sup>

The costs of renewable energy sources have fallen over time due to technological advances, improvements in performance, and increased demand for clean energy. For example, the unsubsidized average levelized cost of wind energy from 1988 to 1999 was \$106/MWh and has since declined to \$32/MWh in 2021.<sup>98</sup> The average levelized cost of energy for utility-scale solar photovoltaics has fallen from \$227/MWh in 2010 to \$33/MWh in

<sup>96</sup> U.S. Energy Information Administration (EIA). *Today in Energy*. More than half of new U.S. electric-generating capacity in 2023 will be solar. February 2023. <https://www.eia.gov/todayinenergy/detail.php?id=55419>.

<sup>97</sup> U.S. Energy Information Administration (EIA). *Monthly Energy Review*, table 7.2B Electricity Net Generation: Electric Power Sector, May 2022. <https://www.eia.gov/totalenergy/data/monthly/>.

<sup>98</sup> U.S. Department of Energy (DOE), *Land-Based Wind Market Report: 2022 Edition*, 2022. <https://www.energy.gov/eere/wind/articles/land-based-wind-market-report-2022-edition>.

2021.<sup>99</sup> And the National Renewable Energy Laboratory (NREL) has documented cost decreases of 64, 69, and 82 percent, respectively, for residential-, commercial-, and utility-scale solar installations since 2010.<sup>100</sup> Local, State, and Federal incentives and tax credits have further reduced the cost of renewable energy resources.

During the past 15 years, more than 122 GW of wind (primarily onshore) and 61 GW of solar capacity have been constructed, which represent a tripling of wind capacity and a 20-fold increase in solar capacity.<sup>101</sup> Prior to 2007, no more than 2.6 GW of new wind capacity was built in any year, and the wind capacity added from 2000 to 2006 averaged 1.2 GW per year. In 2007, the nation added 5.3 GW of total wind capacity and the annual average was 7.2 GW through 2019. Wind capacity additions peaked in the past 2 years at a total of nearly 29 GW. For solar, the pattern of expansion is similar. For example, from 2000 to 2006, a total of 11 MW of new solar capacity was constructed, and from 2007 to 2011, total capacity additions increased to 1.2 GW. However, from 2012 to 2019, more than 36 GW of solar capacity was built (an average of 4.5 GW per year). And in 2020 and 2021, new solar capacity totaled 24 GW. In terms of the net operating share of summer capacity in 2021, wind produced 46 percent of all renewable energy while solar generated 21 percent. The remaining electricity generated from renewables included 28 percent from hydroelectric and 5 percent from other sources that include geothermal systems, biogases/biomethane from landfills, woody materials and other biomass, and municipal solid waste.

There are also emerging technologies such as battery storage that have demonstrated the ability to further support the development and integration of renewable energy to the grid by balancing variable supply and demand resources. At the end of 2021, there were 331 large-scale battery storage systems operating in the U.S. with a combined capacity of 4.8 GW

<sup>99</sup> Lawrence Berkeley National Laboratory (LBNL), *Utility-Scale Solar Technical Brief, 2022 Edition*, September 2022. <https://emp.lbl.gov/utility-scale-solar>.

<sup>100</sup> <https://www.nrel.gov/news/program/2021/documenting-a-decade-of-cost-declines-for-pv-systems.html>.

<sup>101</sup> U.S. Energy Information Administration (EIA). *Electric Generators Inventory, Form-860M, Inventory of Operating Generators and Inventory of Retired Generators*, July 2022. <https://www.eia.gov/electricity/data/eia860m/>.

(10.7 GWh).<sup>102</sup> In terms of small-scale battery storage, there were 781 MW of reported capacity in 2021, mostly in California.<sup>103</sup> Energy storage costs declined 72 percent between 2015 and 2019,<sup>104</sup> and declining costs have led to additional capacity being installed at each facility, and this increases the duration of each system when operating at maximum output. With 20.8 GW of grid storage already announced for 2023–2025, EIA expects that capacity will more than triple from 7.8 GW in late 2022 to approximately 30 GW by the end of 2025.<sup>105</sup>

## 6. Trends in Nuclear Generation

The U.S. power sector continues to rely on nuclear sources of energy for a consistent portion of net generation. Since 1990, nuclear energy has provided about 20 percent of the nation's electricity, and 92 reactors were operating at 54 nuclear power plants in 28 states in 2022.<sup>106</sup>

It should be noted that despite the consistent output from nuclear power plants over time, the number of operating reactors has recently declined. The average retirement age for a nuclear reactor is 44 years and the average age of the remaining nuclear fleet is currently 42 years, although age is only one consideration for determining when a nuclear plant may retire. For example, nuclear generating units at Dominion Generation's Surry plant, Florida Power & Light's Turkey Point plant, and Constellation Energy's Peach Bottom plant applied to the Nuclear Regulatory Commission (NRC) for second 20-year license renewals and subsequent renewed licenses were granted for six units, although four of the six units have not had their license terms extended beyond the periods of their first renewed licenses and are undergoing further environmental review.<sup>107</sup> Others

who have applied to the NRC for a second 20-year license renewal include Dominion for its North Anna units 1 and 2; NextEra Energy for its Point Beach units 1 and 2; Duke Energy Carolinas for its Oconee units 1, 2, and 3; Florida Power & Light for its St. Lucie units 1 and 2; and Northern States Power Company for its Monticello unit 1. If granted, these additional licenses would also extend the lifespans of these units well past the 42-year average. Recent State and Federal policies, including the DOE's \$6 billion Civilian Nuclear Credit program enacted by the IJA and the 45U tax credit (discussed below), are intended to support the continued operation of existing nuclear power plants.

There is also interest in the next generation of nuclear technologies. Small modular nuclear reactors, which can provide both firm dispatchable power and load-following capabilities to balance greater volumes of variable renewable generation, could play a role in future energy generation. The NRC has issued a final rule certifying the first small modular reactor design.<sup>108</sup> Expectations with respect to output from advanced nuclear generation vary, from negligible on the low end to as high as between 1,400 and 3,600 terawatt-hours per year by 2050.<sup>109</sup> According to one survey by the Nuclear Energy Institute, utilities are currently considering building more than 90 GW of small modular nuclear reactors by 2050.<sup>110</sup>

## G. GHG Emissions From Fossil Fuel-Fired EGUs

The principal GHGs that accumulate in the Earth's atmosphere above pre-industrial levels because of human activity are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. Of these, CO<sub>2</sub> is the most abundant, accounting for 80 percent of all GHGs present in the atmosphere. This abundance of CO<sub>2</sub> is largely due to the combustion of fossil fuels by the transportation, electricity, and industrial sectors.<sup>111</sup>

*reactors/operating/licensing/renewal/subsequent-license-renewal.html.*

<sup>108</sup> 88 FR 3287 (January 19, 2023).

<sup>109</sup> Stein, A., Messinger, J., Wang, S., Lloyd, J., McBride, J., Franovich, R. (July 6, 2022). "Advancing Nuclear Energy: Evaluating Deployment, Investment, and Impact in America's Clean Energy Future." Breakthrough Institute. [https://thebreakthrough.imgix.net/Advancing-Nuclear-Energy\\_v3-compressed.pdf](https://thebreakthrough.imgix.net/Advancing-Nuclear-Energy_v3-compressed.pdf).

<sup>110</sup> Derr, E. (July 29, 2022). *Energy Studies and Models Show Advanced Nuclear as the Backbone of Our Carbon-Free Future*. Nuclear Energy Institute (NEI). <https://www.nei.org/news/2022/studies-and-models-show-demand-for-adv-nuclear>.

<sup>111</sup> U.S. Environmental Protection Agency (EPA). Overview of greenhouse gas emissions. July 2021.

The amount of CO<sub>2</sub> emitted from fossil fuel-fired EGUs depends on the carbon content of the fuel and the size and efficiency of the EGU. Different fuels emit different amounts of CO<sub>2</sub> in relation to the energy they produce when combusted. The amount of CO<sub>2</sub> produced when a fuel is burned is a function of the carbon content of the fuel. The heat content, or the amount of energy produced when a fuel is burned, is mainly determined by the carbon and hydrogen content of the fuel. For example, in terms of pounds of CO<sub>2</sub> emitted per million British thermal units of energy produced, when combusted, natural gas is the lowest compared to other fossil fuels at 117 lb CO<sub>2</sub>/MMBtu.<sup>112</sup> The average for coal is 216 lb CO<sub>2</sub>/MMBtu, but varies between 206 to 229 lb CO<sub>2</sub>/MMBtu by type (e.g., anthracite, lignite, subbituminous, and bituminous).<sup>114</sup> The value for petroleum products such as diesel fuel and heating oil is 161 lb CO<sub>2</sub>/MMBtu.

The EPA prepares the official U.S. Inventory of Greenhouse Gas Emissions and Sinks<sup>115</sup> (the U.S. GHG Inventory) to comply with commitments under the United Nations Framework Convention on Climate Change (UNFCCC). This inventory, which includes recent trends, is organized by industrial sectors. It presents total U.S. anthropogenic emissions and sinks<sup>116</sup> of GHGs, including CO<sub>2</sub> emissions, for the years 1990–2020.

According to the latest inventory, in 2021, total U.S. GHG emissions were 6,340 million metric tons of carbon dioxide equivalent (MMT CO<sub>2</sub>e). The transportation sector (28.5 percent) was the largest contributor to total U.S. GHG emissions, followed by the power sector (25.0 percent) and industrial sources

<https://www.epa.gov/ghgemissions/overview-greenhouse-gases#carbon-dioxide>.

<sup>112</sup> Natural gas is primarily CH<sub>4</sub>, which has a higher hydrogen to carbon atomic ratio, relative to other fuels, and thus, produces the least CO<sub>2</sub> per unit of heat released. In addition to a lower CO<sub>2</sub> emission rate on a lb/MMBtu basis, natural gas is generally converted to electricity more efficiently than coal. According to EIA, the 2020 emissions rate for coal and natural gas were 2.23 lb CO<sub>2</sub>/kWh and 0.91 lb CO<sub>2</sub>/kWh, respectively. [www.eia.gov/tools/faqs/faq.php?id=74&t=11](http://www.eia.gov/tools/faqs/faq.php?id=74&t=11).

<sup>113</sup> Values reflect the carbon content on a per unit of energy produced on a higher heating value (HHV) combustion basis and are not reflective of recovered useful energy from any particular technology.

<sup>114</sup> Energy Information Administration (EIA). *Carbon Dioxide Emissions Coefficients*. [https://www.eia.gov/environment/emissions/co2\\_vol\\_mass.php](https://www.eia.gov/environment/emissions/co2_vol_mass.php).

<sup>115</sup> U.S. Environmental Protection Agency (EPA). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2021*. <https://cfpub.epa.gov/ghgdata>.

<sup>116</sup> Sinks are a physical unit or process that stores GHGs, such as forests or underground or deep-sea reservoirs of carbon dioxide.

<sup>102</sup> U.S. Energy Information Administration (EIA). Annual Electric Generator Report, 2021 Form EIA-860. <https://www.eia.gov/electricity/data/eia860/>.

<sup>103</sup> U.S. Energy Information Administration (EIA). Annual Electric Power Industry Report, 2021 Form EIA-861. <https://www.eia.gov/electricity/data/eia861/>.

<sup>104</sup> U.S. Energy Information Administration (EIA). Annual Electric Generator Report, 2019 Form EIA-860. <https://www.eia.gov/analysis/studies/electricity/batterystorage/>.

<sup>105</sup> U.S. Energy Information Administration (EIA). *Today in Energy. U.S. battery storage capacity will increase significantly by 2025*. December 2022. <https://www.eia.gov/todayinenergy/detail.php?id=54939>.

<sup>106</sup> U.S. Energy Information Administration (EIA). *Electric Generators Inventory, Form-860M, Inventory of Operating Generators and Inventory of Retired Generators*. August 2022. <https://www.eia.gov/electricity/data/eia860m/>.

<sup>107</sup> U.S. Nuclear Regulatory Commission (NRC). *Status of Subsequent License Renewal Applications*. April 2023. <https://www.nrc.gov/>

(23.5 percent). In terms of annual CO<sub>2</sub> emissions, the power sector was responsible for 30.6 percent (1,541 MMT CO<sub>2</sub>e) of the nation's 2021 total.

CO<sub>2</sub> emissions from the power sector have declined by 36 percent since 2005 (when the power sector reached annual emissions of 2,400 MMT CO<sub>2</sub>, its historical peak to date).<sup>117</sup> The reduction in CO<sub>2</sub> emissions can be attributed to the power sector's ongoing trends away from carbon-intensive coal-fired generation and toward more natural gas-fired and renewable sources. In 2005, CO<sub>2</sub> emissions from coal-fired EGUs alone measured 1,983 MMT.<sup>118</sup> This total dropped to 1,351 MMT in 2015 and reached 974 MMT in 2019, the first time since 1978 that coal-fired CO<sub>2</sub> emissions were below 1,000 MMT. In 2020, emissions of CO<sub>2</sub> from coal-fired EGUs measured 788 MMT before rebounding in 2021 to 909 MMT due to increased demand. By contrast, CO<sub>2</sub> emissions from natural gas-fired generation have almost doubled since 2005, increasing from 319 MMT to 613 MMT in 2021, and CO<sub>2</sub> emissions from petroleum products (*i.e.*, distillate fuel oil, petroleum coke, and residual fuel oil) declined from 98 MMT in 2005 to 18 MMT in 2021.

When the EPA finalized the Clean Power Plan (CPP) in October 2015, the Agency projected that, as a result of the CPP, the power sector would reduce its annual CO<sub>2</sub> emissions to 1,632 MMT by 2030, or 32 percent below 2005 levels (2,400 MMT).<sup>119</sup> Instead, even in the absence of Federal regulations for existing EGUs, annual CO<sub>2</sub> emissions from sources covered by the CPP had fallen to 1,540 MMT by the end of 2021, a nearly 36 percent reduction below 2005 levels. The power sector achieved a deeper level of reductions than forecast under the CPP and approximately a decade ahead of time. By the end of 2015, several months after the CPP was finalized, those sources already had achieved CO<sub>2</sub> emission levels of 1,900 MMT, or approximately 21 percent below 2005 levels. However, progress in emission reductions is not uniform across all states and so Federal policies play an essential role. As discussed earlier in this section, the power sector remains a leading emitter of CO<sub>2</sub> in the U.S., and, despite the

emission reductions since 2005, current CO<sub>2</sub> levels continue to endanger human health and welfare. Further, as sources in other sectors of the economy turn to electrification to decarbonize, future CO<sub>2</sub> reductions from fossil fuel-fired EGUs have the potential to take on added significance and increased benefits.

#### *The Legislative, Market, and State Law Context*

##### Recent Legislation Impacting the Power Sector

On November 15, 2021, President Biden signed the IJA<sup>120</sup> (also known as the Bipartisan Infrastructure Law), which allocated more than \$65 billion in funding via grant programs, contracts, cooperative agreements, credit allocations, and other mechanisms to develop and upgrade infrastructure and expand access to clean energy technologies. Specific objectives of the legislation are to improve the nation's electricity transmission capacity, pipeline infrastructure, and increase the availability of low-GHG fuels. Some of the IJA programs<sup>121</sup> that will impact the utility power sector include: \$16.5 billion to build and upgrade the nation's electric grid; \$6 billion in financial support for existing nuclear reactors that are at risk of closing and being replaced by high-emitting resources; and more than \$700 million for upgrades to the existing hydroelectric fleet. The IJA established the Carbon Dioxide Transportation Infrastructure Finance and Innovation Program to provide flexible Federal loans and grants for building CO<sub>2</sub> pipelines designed with excess capacity, enabling integrated carbon capture and geologic storage. The IJA also allocated \$21.5 billion to fund new programs to support the development, demonstration, and deployment of clean energy technologies, such as \$8 billion for the development of regional clean hydrogen hubs. Other clean energy technologies with IJA funding include carbon capture, geologic sequestration, direct air capture, grid-scale energy storage, and advanced nuclear reactors. States, Tribes, local communities, utilities, and others are eligible to receive funding.

The IRA, which President Biden signed on August 16, 2022,<sup>122</sup> has the potential for even greater impacts on the electric power sector. With an estimated

\$369 billion in Energy Security and Climate Change programs over the next 10 years, covering grant funding and tax incentives, the IRA provides significant investments in non GHG-emitting generation. For example, one of the conditions set by Congress for the expiration of the Clean Electricity Production Tax Credits of the IRA, found in section 13701, is a 75 percent reduction in GHG emissions from the power sector below 2022 levels. The IRA also contains the Low Emission Electricity Program (LEEP) with funding provided to the EPA with the objective to reduce GHG emissions from domestic electricity generation and use through promotion of incentives, tools to facilitate action, and use of CAA regulatory authority. In particular, CAA section 135, added by IRA section 60107, requires the EPA to conduct an assessment of the GHG emission reductions expected to occur from changes in domestic electricity generation and use through fiscal year 2031 and, further, provides the EPA \$18 million "to ensure that reductions in [GHG] emissions are achieved through use of the existing authorities of [the Clean Air Act], incorporating the assessment. . . ." CAA section 135(a)(6).

The IRA's provisions also demonstrate an intent to support development and deployment of low-GHG emitting technologies in the power sector through a broad array of additional tax credits, loan guarantees, and public investment programs. These provisions are aimed at reducing emissions of GHGs from new and existing generating assets, with tax credits for carbon capture, utilization, and storage (CCUS) and clean hydrogen production providing a pathway for the use of coal and natural gas as part of a low-GHG electricity grid. Finally, with provisions such as the Methane Emissions Reduction Program, Congress demonstrated a focus on the importance of actions to address methane emissions from petroleum and natural gas systems.

To assist states and utilities in their decarbonizing efforts, and most germane to these proposed rulemakings, the IRA increased the tax credit incentives for capturing and storing CO<sub>2</sub>, including from industrial sources, coal-fired steam generating units, and natural gas-fired stationary combustion turbines. The increase in credit values, found in section 13104 (which revises IRC section 45Q), is 70 percent, equaling \$85/metric ton for CO<sub>2</sub> captured and securely stored in geologic formations and \$60/metric ton for CO<sub>2</sub> captured and utilized or securely stored incidentally in conjunction with

<sup>117</sup> U.S. Environmental Protection Agency (EPA). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020*. <https://cfpub.epa.gov/ghgdata/inventoryexplorer/#electricitygeneration/entiresector/allgas/category/all>.

<sup>118</sup> U.S. Energy Information Administration (EIA). *Monthly Energy Review*, table 11.6. September 2022. <https://www.eia.gov/totalenergy/data/monthly/pdf/sec11.pdf>.

<sup>119</sup> 80 FR 63662 (October 23, 2015).

<sup>120</sup> <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

<sup>121</sup> [https://gfoaorg.cdn.prismic.io/gfoaorg/0727aa5a-308f-4ef0-addf-140fd43acf55\\_BUILDING-A-BETTER-AMERICA-V2.pdf](https://gfoaorg.cdn.prismic.io/gfoaorg/0727aa5a-308f-4ef0-addf-140fd43acf55_BUILDING-A-BETTER-AMERICA-V2.pdf).

<sup>122</sup> <https://www.congress.gov/bill/117th-congress/house-bill/5376/text..>

enhanced oil recovery (EOR).<sup>123</sup> The CCUS incentives include 12 years of credits that can be claimed at the higher credit value beginning in 2023 for qualifying projects. These incentives will significantly cut costs and are expected to accelerate the adoption of CCS in the utility power and other industrial sectors. Specifically for the power sector, the IRA requires that a qualifying carbon capture facility have a CO<sub>2</sub> capture design capacity of not less than 75 percent of the baseline CO<sub>2</sub> production of the unit and that construction must begin before January 1, 2033. Tax credits under 45Q can be combined with other tax credits, in some circumstances, and with State-level incentives, including California's low carbon fuel standard which is a market-based program with fuel-specific carbon intensity benchmarks.<sup>124</sup> The magnitude of this incentive is driving investment and announcements, evidenced by the increased number of permit applications for geologic sequestration.

The new provisions in section 13204 (IRC section 45V) codify production tax credits for 'clean hydrogen' as defined in the provision. The value of the credits earned by a project is tiered (four different tiers) and depends on the estimated GHG emissions of the hydrogen production process from well-to-gate. The credits range from \$3/kg H<sub>2</sub> for 0.0 to 0.45 kilograms of CO<sub>2</sub>-equivalent emitted per kilogram of low-GHG hydrogen produced (kg CO<sub>2</sub>e/kg H<sub>2</sub>) down to \$0.6/kg H<sub>2</sub> for 2.5 to 4.0 kg CO<sub>2</sub>e/kg H<sub>2</sub> (assuming wage and apprenticeship requirements are met). Projects with GHG emissions greater than 4.0 kg CO<sub>2</sub>e/kg H<sub>2</sub> are not eligible. According to the DOE, current costs for hydrogen produced from renewable energy are approximately \$5/kg H<sub>2</sub>.<sup>125</sup> These production costs could decline by 2025 to between \$2.5 and \$2.7/kg H<sub>2</sub> (not including the production tax credits).<sup>126</sup>

The clean hydrogen production tax credit is expected to incentivize the production of low-GHG hydrogen and

ultimately exert downward pressure on costs.<sup>127</sup> Low-cost and widely available low-GHG hydrogen has the potential to become a material decarbonization lever in the power sector as the use of low-GHG hydrogen in stationary combustion turbines reduces direct GHG emissions as hydrogen releases no CO<sub>2</sub> when combusted. The tiered eligibility requirements for the clean hydrogen production tax credit also incentivize the lowest-GHG emissions production processes.

Both IRC 45Q and 45V are eligible for additional provisions that increase the value and usability of the credits. Certain tax-exempt entities, such as electric co-ops, may use direct pay for the full 12- or 10-year lifetime of the credits to monetize the credits directly as cash refunds rather than through tax equity transactions. Tax-paying entities may elect to have direct payment of 45Q or 45V credits for five consecutive years. Tax-paying entities may also elect to transfer credits to unrelated taxpayers, enabling direct monetization of the credits again without relying on tax equity transactions.

The production tax credit is not the only provision in the IRA designed to incentivize low-GHG hydrogen. Projects may also access an investment tax credit (ITC) under IRC section 48. For example, manufacturers of clean hydrogen production equipment, like electrolyzers, may apply under IRC section 48C (the Advanced Manufacturing Tax Credit). And the manufacturing facility for electrolyzers could receive credits under section 48C while the resulting hydrogen production facility could then earn credits under section 45V (this form of stacking is allowed by statute). However, the same project may not claim ITC credits under section 48C while claiming PTC credits under section 45V. Projects may not generally combine credits from IRC section 45V with credits in IRC section 45Q. Hydrogen production tax credits became available in January 2023 for eligible new projects. Entities that commence construction between 2023 and 2032 can claim credits for the first 10 years of production.

The magnitude of this incentive—combined with those in the IJA such as the \$8 billion for regional hydrogen hubs and \$1.5 billion for electrolyzer advancement—should accelerate the production of low-GHG hydrogen for

use in a broad range of applications across many sectors, including the utility power sector.<sup>128</sup>

Many of the IRA tax credit incentives are directed toward low- and zero-emission electric generation. They are designed to lower costs and market barriers to bring new zero-emitting generation and energy storage capacity online, to retain existing zero-emitting generators, and the energy efficiency tax credits are designed to reduce electricity demand. These financial tools have been used historically and shown to be a principal policy driver, buttressed by State renewable and clean energy standards, for incentivizing deployment of low- and zero-emitting generation.<sup>129 130</sup>

For example, the IRA expanded and extended the existing section 13101 (IRC section 45) production tax credits for new solar, wind, geothermal, and other eligible zero- or low-GHG emissions energy sources. The production tax credit (PTC) provides credits in a 10-year stream for each MWh of clean energy produced. The IRA indexed the PTC on inflation, increasing the credit amount to \$27.50/MWh for facilities meeting certain wage and apprenticeship requirements. For context, the energy price in the nation's largest wholesale energy market, PJM,<sup>131</sup> is typically between \$20/MWh and \$90/MWh depending on timing, load, and transmission congestion.

In parallel, the existing investment tax credits in section 13101 (IRC section 48) were also expanded and extended in the IRA. Taxpayers must elect between the ITC and the PTC for each applicable project. The ITC enables taxpayers to recoup up to 30 percent of project costs for technologies such as solar, geothermal, fiberoptic solar, fuel cells, microturbines, small wind, offshore wind, combined heat and power (CHP), and waste energy recovery for investments meeting certain wage and apprenticeship requirements. There are also a range of bonus credits available

<sup>128</sup> U.S. Department of Energy (DOE). Pathways to Commercial Liff: Clean Hydrogen, March 2023. <https://www.energy.gov/articles/doe-releases-new-reports-pathways-commercial-liff-off-accelerate-clean-energy-technologies>.

<sup>129</sup> *Impacts of Federal Tax Credit Extensions on Renewable Deployment and Power Sector Emissions*, National Renewable Energy Laboratory (NREL), February 2016.

<sup>130</sup> *A Retrospective Assessment of Clean Energy Investments in the Recovery Act*, February 2016, U.S. Executive Office of the President, Memorandum.

<sup>131</sup> PJM Interconnection LLC (PJM) is a regional transmission organization (RTO) serving all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.

<sup>123</sup> 26 U.S.C. 45Q.

<sup>124</sup> Global CCS Institute. (2019). *The LCFS and CCS Protocol: An Overview for Policymakers and Project Developers*. Policy report. [https://www.globalccsinstitute.com/wp-content/uploads/2019/05/LCFS-and-CCS-Protocol\\_digital\\_version-2.pdf](https://www.globalccsinstitute.com/wp-content/uploads/2019/05/LCFS-and-CCS-Protocol_digital_version-2.pdf).

<sup>125</sup> U.S. Department of Energy (DOE). Hydrogen and Fuel Cell Technologies Office. Hydrogen Shot. <https://www.energy.gov/eere/fuelcells/hydrogen-shot>.

<sup>126</sup> U.S. Department of Energy (DOE). Pathways to Commercial Liff: Clean Hydrogen, March 2023. <https://www.energy.gov/articles/doe-releases-new-reports-pathways-commercial-liff-off-accelerate-clean-energy-technologies>.

<sup>127</sup> Larsen, J., King, B., Kolus, H., Dasari, N., Hiltbrand, G., Herndon, W. (August 12, 2022). *A Turning Point for US Climate Progress: Assessing the Climate and Clean Energy Provisions in the Inflation Reduction Act*. Rhodium Group. <https://rhg.com/research/climate-clean-energy-inflation-reduction-act/>.

if certain criteria are met, for example for meeting domestic content and energy communities' requirements with each earning an additional 10 percent credit. The IRA expanded eligibility to include storage technologies as well as some non-storage technologies.

The IRA also tied the availability of tax credits explicitly to reductions of GHG emissions from the power sector. Sections 13701 and 13702 enacted technology-neutral production and investment tax credits for projects placed in service after 2025 that have GHG emissions rates of zero or less. These credits are available until the phaseout is triggered when the power sector's GHG emissions fall below 25 percent of 2022 levels.

Following State practices, Congress also included a zero-emission nuclear power production credit in the IRA to ensure existing in-service nuclear generators are retained for their contribution to base load zero-carbon emitting electricity. When labor and apprenticeship requirements are met, the credit price is \$15/MWh. The credit amount declines when gross receipts of services provided with electricity rise above a specified level. The program begins in 2024 with credit streams available for nine years. This PTC is complementary to the \$6 billion for nuclear advancements the IJA authorized and appropriated to the DOE. New nuclear plants, including small modular reactors, would be eligible for either the technology-neutral Clean Electricity Production or Investment Credit (IRC section 45Y and 48E).

In the evaluation of these proposed actions, many of the technologies that receive investment under recent Federal legislation are not directly considered, as the EPA has not evaluated the new generation technologies that entities could employ as alternatives to fossil fuel-fired EGUs in its assessment of the BSER. As the discussion of that assessment will make clear later in this preamble, the EPA's inquiry has focused on "measures that improve the pollution performance of individual sources."<sup>132</sup> However, these overarching incentives and policies are important context for this rulemaking.

The following section (section IV.E.2) includes a review of integrated resource plans (IRPs) filed by public utilities that prioritize GHG reductions. IRPs demonstrate how utilities plan to meet future forecasted energy demand while ensuring reliable and cost-effective service. These IRPs demonstrate that

most power companies intend to meet their GHG reduction targets by retiring aging coal-fired steam generating EGUs and replacing them with a combination of renewable resources, energy storage, other non-emitting technologies, and natural gas-fired combustion turbines. Many IRPs further demonstrate the realization of power companies that to meet their GHG reduction targets, their natural gas-fired assets will need to occupy a much smaller GHG footprint through a combination of hydrogen, CCS, and reduced utilization. The IRA is designed to encourage this trend. For example, in addition to the provisions outlined above, including the 10 percent bonus value applied in 'energy communities' that include fossil-related properties, the IRA created grant and loan funding sources for hard-to-abate energy assets. Section 22004 of the IRA authorizes \$9.7 billion in financing for rural electric co-operatives and providers to invest in cleaner technologies to achieve GHG reductions across rural electric systems while buttressing resilience and reliability. Additionally, section 50144 of the IRA, known as the Energy Infrastructure Reinvestment Financing provision, provides \$5 billion for backing \$250 billion in low-cost loans for utilities to repower, repurpose, or replace existing infrastructure that has ceased operations, or to enable operating energy infrastructure to reduce air pollution or GHG emissions. The financing in this provision enables a utility to repurpose an existing fossil site, such as a retired coal-fired power plant, or add CCS, renewable generation, or hydrogen capability to an operating coal- or natural gas-fired power plant and retain community jobs while reducing GHG emissions.

## 2. Commitments by Utilities To Reduce GHG Emissions

The broad trends away from coal-fired generation and toward lower-emitting generation are reflected in the recent actions and announced plans of many utilities across the industry. As highlighted later in this section, through planning documents, IRPs, filings with State and local public utility commissions, and news releases, many utilities have made public commitments to voluntarily cease operating coal-fired generation and move toward zero- and low-GHG energy generation. Many utilities and other power generators have announced plans to increase their renewable energy holdings and continue reducing GHG emissions, regardless of any potential Federal regulatory requirements. For example, 50 power producers that are members of the

Edison Electric Institute have announced CO<sub>2</sub> reduction goals, two-thirds of which include net-zero carbon emissions by 2050.<sup>133</sup> This trend is not unique to the largest owner-operators of coal-fired EGUs; smaller utilities, public power cooperatives, and municipal entities are also contributing to these changes.

Some of the largest electric utilities that have publicly announced near- and long-term GHG reduction commitments, many with emission reduction targets of at least 80 percent (relative to 2005 levels unless otherwise noted), include:

- *Xcel Energy*: 80 percent reduction in CO<sub>2</sub> emissions by 2030 and 100 percent carbon-free by 2050. This includes a commitment to close or repower all remaining coal-fired EGUs by 2030.<sup>134</sup>
- *DTE Energy*: 65 percent reduction in CO<sub>2</sub> emissions by 2028, 90 percent reduction by 2040, and net-zero carbon emissions by 2050.<sup>135</sup>
- *Ameren Energy*: 60 percent reduction in CO<sub>2</sub> by 2030, 85 percent reduction by 2040, and net-zero carbon emissions by 2045.<sup>136</sup>
- *Consumers Energy*: 60 percent reduction in CO<sub>2</sub> by 2025 and net-zero carbon emissions by 2040. This includes the retirement of all coal-fired units by 2025.<sup>137</sup>
- *Southern Company*: 50 percent reduction in CO<sub>2</sub> by 2030 (relative to 2007 levels) and net-zero carbon emissions by 2050.<sup>138</sup>
- *Duke Energy*: 70 percent reduction in CO<sub>2</sub> by 2030 and net-zero carbon

<sup>133</sup> See Comments of Edison Electric Institute to EPA's Pre-Proposal Docket on Greenhouse Gas Regulations for Fossil Fuel-fired Power Plants, Docket ID No. EPA-HQ-OAR-2022-0723, November 18, 2022 ("Fifty EEI members have announced forward-looking carbon reduction goals, two-third of which include a net-zero by 2050 or earlier equivalent goal, and members are routinely increasing the ambition or speed of their goals or altogether transforming them into net-zero goals.").

<sup>134</sup> Xcel Energy is based in Minnesota with operations in Colorado, Michigan, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin. 2018 Integrated Resource Plan at <https://www.xcelenergy.com/staticfiles/xcel-responsive/Company/Rates%20&%20Regulations/Resource%20Plans/2018-SPS-NM-Integrated-Resource-Plan.pdf>.

<sup>135</sup> DTE Energy is based in Michigan. *Our Bold Goal for Michigan's Clean Energy Future* at <https://dtecleanenergy.com/>.

<sup>136</sup> Ameren is based in Illinois and Missouri. 2022 Integrated Resource Plan at <https://www.ameren.com/missouri/company/environment-and-sustainability/integrated-resource-plan>.

<sup>137</sup> Consumers Energy is based in Michigan. Integrated Resource Plan at [https://s26.q4cdn.com/888045447/files/doc\\_presentations/2021/06/2021-Integrated-Resource-Plan.pdf](https://s26.q4cdn.com/888045447/files/doc_presentations/2021/06/2021-Integrated-Resource-Plan.pdf).

<sup>138</sup> Southern Company is based in Georgia with operations in Alabama and Mississippi. <https://www.southerncompany.com/sustainability/net-zero-and-environmental-priorities/net-zero-transition.html>.

<sup>132</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2615 (2022).

emissions by 2050. All coal-fired units will retire by 2035.<sup>139</sup>

- *Minnesota Power (Allete Inc.):* 70 percent renewable energy by 2030, 80 percent reduction in CO<sub>2</sub> and coal-free by 2035, and 100 percent carbon-free by 2050.<sup>140</sup>

- *First Energy:* 30 percent reduction in CO<sub>2</sub> by 2030 (relative to 2019 levels) and net-zero carbon emissions by 2050.<sup>141</sup>

- *American Electric Power:* 80 percent reduction in CO<sub>2</sub> by 2030 and net-zero carbon emissions by 2045.<sup>142</sup>

- *Alliant Energy:* 50 percent reduction in CO<sub>2</sub> by 2030 and net-zero carbon emissions by 2050; will retire final coal-fired EGU by 2040.<sup>143</sup>

- *Tennessee Valley Authority:* 70 percent reduction in CO<sub>2</sub> by 2030, 80 percent reduction by 2035, and net-zero carbon emissions by 2050.<sup>144</sup>

- *NextEra Energy:* 70 percent reduction in CO<sub>2</sub> by 2025, 82 percent reduction by 2030, 87 percent reduction by 2035, 94 percent reduction by 2040, and carbon-free by 2045.<sup>145</sup>

The geographic footprint of zero or net-zero carbon commitments made by utilities, their parent companies, or in response to a State clean energy requirement, covers portions of 47 states and includes 75 percent of U.S. customer accounts.<sup>146</sup> These statements

are often made as part of long-term planning processes with considerable stakeholder involvement, including regulators.

### 3. State Actions To Reduce Power Sector GHG Emissions

States across the country have taken the lead in efforts to reduce GHG emissions from the power sector. These actions include commitments that require utilities to expand renewable and clean energy production through the adoption of renewable portfolio standards (RPS) and clean energy standards (CES), as well as other measures tailored to decarbonize State power systems enacted in specific legislation.

Twenty-nine states and the District of Columbia have enforceable RPS.<sup>147</sup> RPS require a percentage of electricity that utilities sell to come from eligible renewable sources like wind and solar rather than from fossil fuel-based sources like coal and natural gas. Fifteen states have RPS targets that are at or well above 50 percent. Eight of these states—California, Illinois, Massachusetts, Maryland, Minnesota, New Jersey, Nevada, and Oregon—have targets ranging from 50 percent to just below 70 percent. Four states—Maine, New Mexico, New York, and Vermont—have RPS targets greater than or equal to 70 percent but below 100 percent, and three states—Hawaii, Rhode Island, and Virginia plus the District of Columbia—have 100 percent RPS requirements. Most of these ambitious targets fall during the next decade. Ten states and the District of Columbia have final targets that mature between 2025 and 2033, while the remaining five states impose peak requirements between 2040 and 2050. Resources that are eligible under an RPS vary by State and are determined by the State's existing energy production and possibility for renewable energy development. For example, Colorado's RPS includes a range of resources such as solar, wind, emissions-neutral coal mine methane and other sources as qualifying renewable energy sources. Hawaii's includes, but is not limited to, solar, wind, and energy produced from falling water, ocean water, waves, and water currents. RPS in some other states include landfill gas, animal wastes, CHP, and energy efficiency.<sup>148</sup>

*transformation-challenge/utility-carbon-reduction-tracker/*. Accessed January 12, 2023.

<sup>147</sup> DSIRE, Renewable Portfolio Standards and Clean Energy Standards (2022). <https://ncsolarcenter.s3.amazonaws.com/wp-content/uploads/2022/11/RPS-CES-Nov2022.pdf>.

<sup>148</sup> NCSL (2021). *State Renewable Portfolio Standards and Goals*. <https://www.ncsl.org/>

States are also shifting their generating fleets away from fossil fuel generating resources through the adoption of CES. A CES requires a percentage of retail electricity to come from sources that are defined as clean. Unlike an RPS, which defines eligible generation in terms of the renewable attributes of its energy source, CES eligibility is based on the GHG emission attributes of the generation itself, typically with a zero or net-zero carbon emissions requirement. Twenty-one states have adopted some form of clean energy requirement or goal with 17 of those states setting 100 percent targets. In nearly all cases, the CES applies in addition to the State's other RPS requirements. Seven states, including California, Colorado, Minnesota, New York, Washington, Oregon, and Arizona, have a zero or net-zero carbon emissions requirement with most target dates falling in 2040, 2045, or 2050. Two states—New Mexico and Massachusetts—have 80 percent clean energy requirements that must be met in 2045 and 2050, respectively. Ten additional states, including Connecticut, New Jersey, Nevada, Wisconsin, Illinois, Maine, North Carolina, Nebraska, Louisiana, and Michigan, have 100 percent clean energy goals with target dates falling in either 2040 or 2050. Like an RPS, CES resource eligibility can vary from State to State. One key difference between an RPS and a CES is the extent to which a CES can allow for resources like nuclear and CCS-enabled coal and natural gas, which are not renewable but have low or zero direct GHG emission attributes that make them CES eligible.

In addition, states across the U.S. have announced specific legislation aimed at reducing GHG emissions. In California, Senate Bill 32, passed in 2016, was a landmark legislation that requires California to reduce its economy-wide GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. Senate Bill 100, passed in 2018, requires California to procure 60 percent of all electricity from renewable sources by 2030 and plan for 100 percent from carbon-free sources by 2045. Senate Bills 605 and 1383, passed in 2016, require a reduction in emissions of short-lived climate pollutants like methane by 40 to 50 percent below 2013 levels by 2030.<sup>149</sup> Achieving California's established goal

[research/energy/renewable-portfolio-standards.aspx](https://www.energy/renewable-portfolio-standards.aspx).

<sup>149</sup> Berkeley Law. *California Climate Policy Dashboard*. <https://www.law.berkeley.edu/research/cee/research/climate/climate-policy-dashboard>.

<sup>139</sup> Duke Energy is based in North Carolina with operations in South Carolina, Florida, Indiana, Ohio, and Kentucky. *NC IRP Fact Sheet* at <https://p-scapi.duke-energy.com/-/media/pdfs/our-company/202296-nc-irp-fact-sheet.pdf>.

<sup>140</sup> Allete Energy is based in Minnesota with operations in Wisconsin and North Dakota. *Integrated Resource Plan* at: <https://www.edockets.state.mn.us/EFiling/edockets/search/Documents.do?method=showPoup&documentId=%7b70795F77-0000-C41E-A71C-FD089119967C%7d&documentTitle=20212-170583-01>.

<sup>141</sup> First Energy is based in Ohio with operations in Pennsylvania, West Virginia, and New Jersey. <https://www.firstenergycorp.com/content/dam/environmental/files/climate-strategy.pdf>.

<sup>142</sup> American Electric Power (AEP) is based in Ohio with operations in Arkansas, Indiana, Kentucky, Louisiana, Michigan, Oklahoma, Tennessee, Texas, Virginia, and West Virginia. *Clean Energy Future* at <https://www.aep.com/about/ourstory/cleanenergy>.

<sup>143</sup> Alliant Energy has operations in Iowa and Wisconsin. See *Our Sustainable Energy Plan* at <https://www.alliantenergy.com/cleanenergy/ourenergyvision/poweringwhatsnext/sustainableenergyplan>.

<sup>144</sup> Tennessee Valley Authority (TVA) is based in Tennessee with operations in Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia. See <https://www.tva.com/newsroom/press-releases/tva-charts-path-to-clean-energy-future>.

<sup>145</sup> NextEra Energy. See <https://newsroom.nexteraenergy.com/2022-06-14-NextEra-Energy-sets-industry-leading-Real-Zero-TM-goal-to-eliminate-carbon-emissions-from-its-operations,-leverage-low-cost-renewables-to-drive-energy-affordability-for-customers>.

<sup>146</sup> Smart Electric Power Alliance Utility Carbon Tracker. See <https://sepapower.org/utility->



of carbon-free electricity by 2045 requires emissions to be balanced by carbon sequestration, capture, or other technologies. Senate Bill 905, passed in 2022, requires the California Air Resources Board to establish programs for permitting CCS projects.<sup>150</sup> Senate Bill 905, also passed in 2022, prevents the use of captured CO<sub>2</sub> for enhanced oil recovery within California.

In New York, The Climate Leadership and Community Protection Act, passed in 2019, sets several climate targets. The most important goals include an 85 percent reduction in GHG emissions by 2050, 100 percent zero-emission electricity by 2040, and 70 percent renewable energy by 2030. Other targets include 9,000 MW of offshore wind by 2035, 3,000 MW of energy storage by 2030, and 6,000 MW of solar by 2025.<sup>151</sup>

Washington State's Climate Commitment Act sets a target of reducing GHG emissions by 95 percent by 2050. The State is required to reduce emissions to 1990 levels by 2020, 45 percent below 1990 levels by 2030, 70 percent below 1990 levels by 2040, and 95 percent below 1990 levels by 2050. This also includes achieving net-zero emissions by 2050.<sup>152</sup>

In addition to the prevalence of State RPS and CES programs outlined above, several states developed regulatory programs to retain nuclear power plants to preserve the significant amount of zero-emission output the plants provide, especially as many nuclear plants face downward economic pressures resulting from ultra-low natural gas spot prices combined with increasing NGCC capacity. Between 2016 and 2021, New York, New Jersey, Connecticut, and Illinois took action to retain their nuclear power stations by providing State-level financial incentives. Retention of nuclear power plants is another strategy that some states have used to ensure an increasing market share for zero-emission electricity generation. As discussed earlier, the IRA included a zero-emission nuclear power production credit in section 13105, also referred to as IRC section 45U.<sup>153</sup>

In the past two years, State actions have generally increased their decarbonization ambitions. For example, legislation in Illinois and

North Carolina requires a transition away from GHG-emitting generation. Illinois' Climate and Equitable Jobs Act, which became law on September 25, 2021, requires all private coal-fired or oil-fired power plants to reach zero carbon emissions by 2030, municipal coal-fired plants to reach zero carbon emissions by 2045, and natural gas-fired plants to reach zero carbon emissions by 2045.<sup>154</sup> On October 13, 2021, North Carolina passed House Bill 951 that required the North Carolina Utilities Commission to "take all reasonable steps to achieve a seventy percent (70%) reduction in emissions of carbon dioxide (CO<sub>2</sub>) emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030 and carbon neutrality by the year 2050."<sup>155</sup>

### 1. Projections of Power Sector Trends

Projections for the U.S. power sector—based on the landscape of market forces in addition to the known actions of Congress, utilities, and states—have indicated that the ongoing transition will continue for specific fuel types and EGUs. The EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model post-IRA 2022 reference case (*i.e.*, the EPA's projections of the power sector, which includes representation of the IRA absent further regulation), provides projections out to 2050 on future outcomes of the electric power sector. For more information on the details of this modeling, see the model documentation.<sup>156</sup>

Since the passage of the IRA in August 2022, the EPA has engaged with many external partners, including other governmental entities, academia, non-governmental organizations (NGOs), and industry, to understand the impacts that the IRA will have on power sector GHG emissions. In addition to engaging in several workgroups, the EPA has contributed to two separate journal articles that include multi-model comparisons of IRA impacts across several state-of-the-art models of the U.S. energy system and electricity

sector.<sup>157 158</sup> and participated in public events exploring modeling assumptions for the IRA.<sup>159</sup> The EPA plans to continue collaborating with stakeholders, conducting external engagements, and using information gathered to refine modeling of the IRA. As such, the EPA is soliciting comment on power sector modeling of the IRA, including the assumptions and potential impacts, including assumptions about growth in electric demand, rates at which renewable generation can be built, and cost and performance assumptions about all relevant technologies, including carbon capture, renewables, energy storage and other generation technologies.

While much of the discussion below focuses on the EPA's post-IRA 2022 reference case, many other analyses show similar trends,<sup>160</sup> and these trends are consistent with utility IRPs and public GHG reduction commitments, as well as State actions, both of which were described in the previous sections.

### 1. Projections for Coal-Fired Generation

In the post-IRA 2022 reference case, coal-fired steam EGU capacity is projected to fall from 210 GW in 2021<sup>161</sup> to 44 GW in 2035, of which 11 GW includes retrofit CCS. Generation from coal-fired steam generating units is projected to also fall from 898 thousand GWh in 2021<sup>162</sup> to 120 thousand GWh by 2035. This change in generation reflects the anticipated continued decline in projected coal-fired steam generating unit capacity as well as a steady decline in annual operation of those EGUs that remain online, with capacity factors falling from approximately 41 percent in 2021 to 15 percent in 2035. By 2050, coal-fired steam generating unit capacity is projected to diminish further, with only 10 GW, or less than 5 percent of 2021

<sup>157</sup> Bistline, *et al.* (2023). "Emissions and Energy System Impacts of the Inflation Reduction Act of 2022," Under Review.

<sup>158</sup> Bistline, *et al.* (2023). "Power Sector Impacts of the Inflation Reduction Act of 2022," In Preparation.

<sup>159</sup> Resource for the Future (2023). "Future Generation: Exploring the New Baseline for Electricity in the Presence of the Inflation Reduction Act." <https://www.rff.org/events/rff-live/future-generation-exploring-the-new-baseline-for-electricity-in-the-presence-of-the-inflation-reduction-act/>.

<sup>160</sup> A wide variety of modeling teams have assessed baselines with IRA. The baseline estimated here is generally in line with these other estimates. Bistline, *et al.* (2023). "Power Sector Impacts of the Inflation Reduction Act of 2022," In Preparation.

<sup>161</sup> U.S. Energy Information Administration (EIA), Electric Power Annual, table 4.3. November 2022. <https://www.eia.gov/electricity/annual/>.

<sup>162</sup> U.S. Energy Information Administration (EIA), Electric Power Annual, table 3.1.A. November 2022. <https://www.eia.gov/electricity/annual/>.

<sup>150</sup> Berkeley Law. *California Climate Policy Dashboard*. <https://www.law.berkeley.edu/research/clee/research/climate/climate-policy-dashboard>.

<sup>151</sup> New York State. *Our Progress*. <https://climate.ny.gov/Our-Progress>.

<sup>152</sup> Department of Ecology Washington State. *Greenhouse Gases*. <https://ecology.wa.gov/Air-Climates/Climate-change/Tracking-greenhouse-gases>.

<sup>153</sup> [http://uscode.house.gov/view.xhtml?req=\(title:26%20section:45U%20edition:prelim\)](http://uscode.house.gov/view.xhtml?req=(title:26%20section:45U%20edition:prelim)).

<sup>154</sup> State of Illinois General Assembly. Public Act 102–0662: Climate and Equitable Jobs Act. 2021. <https://www.ilga.gov/legislation/publicacts/102/PDF/102-0662.pdf>.

<sup>155</sup> General Assembly of North Carolina, House Bill 951 (2021). <https://www.ncleg.gov/Sessions/2021/Bills/House/PDF/H951v5.pdf>.

<sup>156</sup> U.S. Environmental Protection Agency. *Post-IRA 2022 Reference Case EPA's Power Sector Modeling Platform v6 Using IPM*. April 2023. <https://www.epa.gov/power-sector-modeling/post-ira-2022-reference-case>.

capacity (and approximately 3 percent of the 2010 capacity), still in operation across the continental U.S. These projections are driven by the eroding economic opportunities for coal-fired steam generating units to operate, the continued aging of the fleet of coal-fired steam generating units, and the continued availability and expansion of low-cost alternatives, like natural gas, renewable technologies, and energy storage.

In 2020, there was a total of 1,439 million metric tons of CO<sub>2</sub> from the power sector with coal-fired sources contributing to over half of those emissions. In the post-IRA 2022 reference case, power sector related CO<sub>2</sub> emissions are projected to fall to 608 million metric tons by 2035, of which 8 percent is projected to come from coal-fired sources in 2035.

## 2. Projections for Natural Gas-Fired Generation

As described in the post-IRA 2022 reference case, natural gas-fired capacity is expected to continue to buildout during the next decade with 61 GW of new capacity projected to come online by 2035 and 309 GW of new capacity by 2050. By 2035, the new natural gas capacity is comprised of 24 GW of simple cycle combustion turbines and 37 GW of combined cycle combustion turbines. By 2050, most of the incremental new capacity is projected to come just from simple cycle combustion turbines. This also represents a higher rate of new simple cycle combustion turbine builds compared to the reference periods (*i.e.*, 2000–2006 and 2007–2021) discussed previously in this section.

It should be noted that despite this increase in capacity, both overall generation and emissions from the natural gas-fired capacity are projected to decline. Generation from natural gas units is projected to fall from 1,579 thousand GWh in 2021<sup>163</sup> to 1,402 thousand GWh by 2035. Power sector related CO<sub>2</sub> emissions from natural gas-fired EGUs were 615 million metric tons in 2021.<sup>164</sup> By 2035, emission levels are projected to reach 527 million metric tons, 93 percent of which comes from NGCC sources.

<sup>163</sup> U.S. Energy Information Administration (EIA), *Electric Power Annual*, table 3.1.A. November 2022. <https://www.eia.gov/electricity/annual/>.

<sup>164</sup> U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emission Sources and Sinks*. February 2023. <https://www.epa.gov/system/files/documents/2023-02/US-GHG-Inventory-2023-Main-Text.pdf>.

The decline in generation and emissions is driven by a projected decline in NGCC capacity factors. In model projections, NGCC units have a capacity factor early in the projection period of 64 percent, but by 2035, capacity factor projections fall to 50 percent as many of these units switch from base load operation to more intermediate load operation to support the integration of variable renewable energy resources. Natural gas simple cycle combustion turbine capacity factors also fall, although since they are used primarily as a peaking resource and their capacity factors are already below 10 percent annually, their impact on generation and emissions changes are less notable.

Some of the reasons for this continued growth in natural gas-fired capacity include anticipated sustained lower fuel costs and the greater efficiency and flexibility offered by combustion turbines. Simple cycle combustion turbines operate at lower efficiencies but offer fast startup times to meet peaking load demands. In addition, combustion turbines, along with energy storage technologies, support the expansion of renewable electricity by meeting demand during peak periods and providing flexibility around the variability of renewable generation and electricity demand. In the longer term, as renewables and battery storage grow, they are anticipated to outcompete the need for natural gas-fired generation and the overall utilization of natural gas-fired capacity is expected to decline.

## 3. Projections for Renewable Generation

The EIA's *Short-Term Energy Outlook* (STEO) suggests that the U.S. will continue its expansion of wind and solar renewable capacity with most of the growth in electricity capacity additions in the next 2 years to come from renewable energy sources.<sup>165</sup> The EIA projects utility-scale solar capacity to grow by approximately 29 GW in 2023 and by 35 GW in 2024 wind generating capacity to grow by 7 GW in 2023 and by 7.5 GW in 2024. These increases in new renewable capacity will continue to reduce the demand for fossil fuel-fired generation.

In the post-IRA 2022 reference case projections, shows that this short-term trend in renewable capacity is expected to continue. Non-hydroelectric utility-scale renewable capacity is projected to increase from 209 GW in 2021 to 668

<sup>165</sup> U.S. Energy Information Administration (EIA), *Short-Term Energy Outlook*, March 2023. <https://www.eia.gov/outlooks/steo/>.

GW by 2035 and then to 1,293 GW by 2050. This capacity growth is comprised mostly of wind and solar. The post-IRA 2022 reference case shows projections of 399 GW of wind capacity by 2035 and 748 GW by 2050. Utility-scale solar capacity has a similar trajectory with 263 GW by 2035 and 539 GW by 2050 and small-scale or distributed solar capacity (*e.g.*, rooftop solar) similarly increases from 33 GW in 2021 to 198 GW in 2050.<sup>166</sup> In total, non-hydroelectric utility-scale renewable generation is projected to produce 45 percent of electricity generation by 2035 in the post-IRA 2022 reference case.

## 4. Projections for Energy Storage

According to EIA, the capacity of battery energy storage is expected to increase by 10 times between 2019 and 2023, of which 6 GW of battery storage capacity is planned to be co-located with solar generation.<sup>167</sup> The benefit of pairing energy storage systems with solar capacity deployment is that the batteries can recharge throughout the middle of the day when surplus energy is available. Then this stored energy can be discharged during peak hours, supporting grid reliability and potentially displacing higher emitting generation. This also reduces curtailment of renewable energy when generation exceeds demand.

The build out of energy storage is projected to continue in the long-term, enabling the integration of renewable technologies with lower emission consequences. The post-IRA 2022 reference case shows projections of 97 GW of energy storage to be available on the grid by 2035 and 152 GW by 2050.

## 5. Projections for Nuclear Energy

The post-IRA 2022 reference case shows a steady decline in nuclear generating capacity, dropping from 96 GW in 2021 to 84 GW or by 12 percent by 2035. In the short-term, capacity reductions are expected to be delayed in part due to programs passed as part of the IIJA and IRA. These acts, along with several State programs, support the continued use of existing nuclear facilities by providing payments that

<sup>166</sup> U.S. Energy Information Administration (EIA), *Electric Power Annual*, table 4.3. November 2022. <https://www.eia.gov/electricity/annual/>.

<sup>167</sup> U.S. Energy Information Administration (EIA), *Preliminary Monthly Electric Generator Inventory*, December 2020 Form EIA-860M. <https://www.eia.gov/analysis/studies/electricity/batterstorage/>.



will likely keep reactors in affected regions profitable for the next 5–10 years.<sup>168</sup> After 2035, the EPA projects nuclear capacity retirements to occur as EGUs begin to age out of operation, and by 2050, the nuclear fleet is projected to reduce by more than half, to 45 GW. However, breakthrough technologies like small modular reactors, if successful, could result in higher levels of nuclear capacity than discussed here. For example, output from advanced nuclear generation could range from negligible to as high as 3,600 terawatt-hours per year by 2050.<sup>170</sup>

## V. Statutory Background and Regulatory History for CAA Section 111

### A. Statutory Authority To Regulate GHGs From EGUs Under CAA Section 111

The EPA's authority for and obligation to issue these proposed rules is CAA section 111, which establishes mechanisms for controlling emissions of air pollutants from new and existing stationary sources. CAA section 111(b)(1)(A) requires the EPA Administrator to promulgate a list of categories of stationary sources that the Administrator, in his or her judgment, finds "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." The EPA has the authority to define the scope of the source categories, determine the pollutants for which standards should be developed, and distinguish among classes, types, and sizes within categories in establishing the standards.

#### 1. Regulation of Emissions From New Sources

Once the EPA lists a source category, the EPA must, under CAA section 111(b)(1)(B), establish "standards of performance" for emissions of air pollutants from new sources (including modified and reconstructed sources) in the source category. Under CAA section 111(a)(2), a "new source" is defined as "any stationary source, the construction or modification of which is commenced

after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section, which will be applicable to such source." Under CAA section 111(a)(3), a "stationary source" is defined as "any building, structure, facility, or installation which emits or may emit any air pollutant." Under CAA section 111(a)(4), "modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted. While this provision treats modified sources as new sources, EPA regulations also treat a source that undergoes "reconstruction" as a new source. Under the provisions in 40 CFR 60.15, "reconstruction" means the replacement of components of an existing facility such that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and (2) it is technologically and economically feasible to meet the applicable standards. Pursuant to CAA section 111(b)(1)(B), the standards of performance or revisions thereof shall become effective upon promulgation.

The standards of performance for new sources are referred to as new source performance standards, or NSPS. The NSPS are national requirements that apply directly to the sources subject to them.

In setting or revising a performance standard, CAA section 111(a)(1) provides that performance standards are to reflect "the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." The term "standard of performance" in CAA 111(a)(1) makes clear that the EPA is to determine both the "best system of emission reduction . . . adequately demonstrated" (BSER) for the regulated sources in the source category and the "degree of emission limitation achievable through the application of the [BSER]." *West Virginia v. EPA*, 142 S. Ct. 2587, 2601 (2022). To determine the BSER, the EPA first identifies the "system[s] of emission reduction" that are "adequately demonstrated," and then determines the "best" of those systems, "taking into account" factors including "cost," "nonair quality health and

environmental impact," and "energy requirements." The EPA then derives from that system an "achievable" "degree of emission limitation." The EPA must then, under CAA section 111(b)(1)(B), promulgate "standard[s] for emissions"—the NSPS—that reflect that level of stringency.

#### 2. Regulation of Emissions From Existing Sources

When the EPA establishes a standard for emissions of an air pollutant from new sources within a category, it must also, under CAA section 111(d), regulate emissions of that pollutant from *existing* sources within the same category, unless the pollutant is regulated under the National Ambient Air Quality Standards (NAAQS) program, under CAA sections 108–110, or the National Emission Standards for Hazardous Air Pollutants (NESHAP) program, under CAA section 112. See CAA section 111(d)(1)(A)(i) and (ii); *West Virginia*, 142 S. Ct. at 2601.

CAA section 111(d) establishes a framework of "cooperative federalism for the regulation of existing sources." *American Lung Ass'n*, 985 F.3d at 931. CAA sections 111(d)(1)(A)–(B) require "[t]he Administrator . . . to prescribe regulations" that require "[e]ach state . . . to submit to [EPA] a plan . . . which establishes standards of performance for any existing stationary source for" the air pollutant at issue, and which "provides for the implementation and enforcement of such standards of performance." CAA section 111(a)(6) defines an "existing source" as "any stationary source other than a new source."

To meet these requirements, the EPA promulgates "emission guidelines" that identify the BSER and the degree of emission limitation achievable through the application of the BSER. Each State must then establish standards of performance for its sources that reflect that level of stringency. However, the states need not compel regulated sources to adopt the particular components of the BSER itself. The EPA's emission guidelines must also permit a State, "in applying a standard of performance to any particular source," to "take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies." 42 U.S.C. 7411(d)(1). Once a State receives the EPA's approval of its plan, the provisions in the plan become federally enforceable against the source, in the same manner as the provisions of an approved State Implementation Plan (SIP) under the Act. If a State elects not to submit a plan or submits a plan that

<sup>168</sup> "Constellation Making Major Investments in Two Illinois Nuclear Plants to Increase Clean Energy Output." Constellation Energy Corporation. February 21, 2023. <https://www.constellationenergy.com/newsroom/2023/Constellation-Making-Major-Investment-in-Two-Illinois-Nuclear-Plants-to-Increase-Clean-Energy-Output.html>.

<sup>169</sup> Singer, S. (February 22, 2023). *PSEG to consider nuclear plant investments, capitalizing on the IRA's production tax credits*, CEO says. Utility Dive. <https://www.utilitydive.com/news/pseg-ira-nuclear-production-tax-credits/643221/>.

<sup>170</sup> "Advancing Nuclear Energy Evaluating Deployment, Investment, and Impact in America's Clean Energy Future" Breakthrough Institute, July 6, 2022.

the EPA does not find “satisfactory,” the EPA must promulgate a plan that establishes Federal standards of performance for the State’s existing sources. CAA section 111(d)(2)(A).

### 3. EPA Review of Requirements

CAA section 111(b)(1)(B) requires the EPA to “at least every 8 years, review and, if appropriate, revise” new source performance standards. However, the Administrator need not review any such standard if the “Administrator determines that such review is not appropriate in light of readily available information on the efficacy” of the standard. *Id.* When conducting a review of an NSPS, the EPA has the discretion and authority to add emission limits for pollutants or emission sources not currently regulated for that source category. CAA section 111 does not by its terms require the EPA to review emission guidelines for existing sources, but the EPA retains the authority to do so. See 81 FR 59276, 59277 (August 29, 2016) (explaining legal authority to review emission guidelines for municipal solid waste landfills).

#### *B. History of EPA Regulation of Greenhouse Gases From Electricity Generating Units Under CAA Section 111 and Caselaw*

The EPA has listed more than 60 stationary source categories under CAA section 111(b)(1)(A). See 40 CFR part 60, subparts Cb–OOOO. In 1971, the EPA listed fossil fuel-fired EGUs (which includes natural gas, petroleum, and coal) that use steam-generating boilers in a category under CAA section 111(b)(1)(A). See 36 FR 5931 (March 31, 1971) (listing “fossil fuel-fired steam generators of more than 250 million Btu per hour heat input”). In 1977, the EPA listed fossil fuel-fired combustion turbines, which can be used in EGUs, in a category under CAA section 111(b)(1)(A). See 42 FR 53657 (October 3, 1977) (listing “stationary gas turbines”).

In 2015, the EPA promulgated two rules that addressed CO<sub>2</sub> emissions from fossil fuel-fired EGUs. The first promulgated standards of performance for new fossil fuel-fired EGUs. “Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Final Rule,” (80 FR 64510; October 23, 2015) (2015 NSPS). The second promulgated emission guidelines for existing sources. “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule,”

(80 FR 64662; October 23, 2015) (Clean Power Plan, or CPP).

### 1. 2015 NSPS

In 2015, the EPA promulgated an NSPS to limit emissions of GHGs, manifested as CO<sub>2</sub>, from newly constructed, modified, and reconstructed fossil fuel-fired electric utility steam generating units, *i.e.*, utility boilers and IGCC EGUs, and newly constructed and reconstructed stationary combustion turbine EGUs. These final standards are codified in 40 CFR part 60, subpart TTTT.

In promulgating the NSPS for newly constructed fossil fuel-fired steam generating units, the EPA determined the BSER to be a new, highly efficient, supercritical pulverized coal (SCPC) EGU that implements post-combustion partial CCS technology. The EPA concluded that CCS was adequately demonstrated (including being technically feasible) and widely available and could be implemented at reasonable cost. The EPA identified natural gas co-firing and IGCC technology (either with natural gas co-firing or implementing partial CCS) as alternative methods of compliance.

The 2015 NSPS included standards of performance for steam generating units that undergo a “reconstruction” as well as units that implement “large modifications,” (*i.e.*, modifications resulting in an increase in hourly CO<sub>2</sub> emissions of more than 10 percent). The 2015 NSPS did not establish standards of performance for steam generating units that undertake “small modifications” (*i.e.*, modifications resulting in an increase in hourly CO<sub>2</sub> emissions of less than or equal to 10 percent), due to the limited information available to inform the analysis of a BSER and corresponding standard of performance.

The 2015 NSPS also finalized standards of performance for newly constructed and reconstructed stationary combustion turbine EGUs. For newly constructed and reconstructed base load natural gas-fired stationary combustion turbines, the EPA finalized a standard based on efficient NGCC technology as the BSER. For newly constructed and reconstructed non-base load natural gas-fired stationary combustion turbines and for both base load and non-base load multi-fuel-fired stationary combustion turbines, the EPA finalized a heat input-based standard based on the use of lower emitting fuels (referred to as clean fuels in the 2015 NSPS). The EPA did not promulgate final standards of performance for modified stationary combustion turbines due to lack of

information. These standards remain in effect today.

The EPA received six petitions for reconsideration of the 2015 NSPS. On May 6, 2016 (81 FR 27442), the EPA denied five of the petitions on the basis they did not satisfy the statutory conditions for reconsideration under CAA section 307(d)(7)(B), and deferred action on one petition that raised the issue of the treatment of biomass.

Multiple parties also filed petitions for judicial review of the 2015 NSPS in the D.C. Circuit. These cases have been briefed and, on the EPA’s motion, are being held in abeyance while the Agency reviews the rule and considers whether to propose revisions to it.

In the 2015 NSPS, the EPA noted that it was authorized to regulate GHGs from the fossil fuel-fired EGU source categories because it had listed those source categories under CAA section 111(b)(1)(A). The EPA added that CAA section 111 did not require it to make a determination that GHGs from EGUs contribute significantly to dangerous air pollution (a pollutant-specific significant contribution finding), but in the alternative, the EPA did make that finding. It explained that “[greenhouse gas] air pollution may reasonably be anticipated to endanger public health or welfare,” 80 FR 64530 (October 23, 2015) and emphasized that power plants are “by far the largest emitters” of greenhouse gases among stationary sources in the U.S. *Id.* at 64522. In *American Lung Ass’n v. EPA*, 985 F.3d 977 (D.C. Cir. 2021), the court held that even if the EPA were required to determine that CO<sub>2</sub> from fossil fuel-fired EGUs contributes significantly to dangerous air pollution—and the court emphasized that it was not deciding that the EPA was required to make such a pollutant-specific determination—the determination in the alternative that the EPA made in the 2015 NSPS was not arbitrary and capricious and, accordingly, the EPA had a sufficient basis to regulate greenhouse gases from EGUs under CAA section 111(d) in the ACE Rule. The EPA is not reopening or soliciting comment on any of those determinations in the 2015 NSPS concerning its rational basis to regulate GHG emissions from EGUs or its alternative finding that GHG emissions from EGUs contribute significantly to dangerous air pollution.

### 2. 2018 Proposal To Revise the 2015 NSPS

In 2018, the EPA proposed to revise the NSPS for new, modified, and reconstructed fossil fuel-fired steam generating units and IGCC units. “Review of Standards of Performance

for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Proposed Rule,” (83 FR 65424; December 20, 2018) (2018 NSPS Proposal). The EPA proposed to revise the NSPS for newly constructed units, based on a revised BSER of a highly efficient SCPC, without partial CCS. The EPA also proposed to revise the NSPS for modified and reconstructed units. The EPA has not taken further action on this proposed rule.<sup>171</sup>

### 3. Clean Power Plan

With the promulgation of the 2015 NSPS, the EPA also incurred a statutory obligation under CAA section 111(d) to issue emission guidelines for GHG emissions from existing fossil fuel-fired steam generating EGUs and stationary combustion turbine EGUs, which the EPA initially fulfilled with the promulgation of the CPP. See 80 FR 64662 (October 23, 2015). The EPA first determined that the BSER included three types of measures: (1) Improving heat rate (*i.e.*, the amount of fuel that must be burned to generate a unit of electricity) at coal-fired steam plants; (2) substituting increased generation from lower-emitting NGCC plants for generation from higher-emitting steam plants (which are primarily coal-fired); and (3) substituting increased generation from new renewable energy sources for generation from fossil fuel-fired steam plants and combustion turbines. See 80 FR 64667 (October 23, 2015). The latter two measures are known as “generation shifting” because they involve shifting electricity generation from higher-emitting sources to lower-emitting ones. See 80 FR 64728–29 (October 23, 2015).

The EPA based this BSER determination on a technical record that evaluated generation-shifting, including its cost-effectiveness, against the relevant statutory criteria for BSER and on a legal interpretation that the term “system” in CAA section 111(a)(1) is

<sup>171</sup> In the 2018 NSPS Proposal, the EPA solicited comment on whether it is required to make a determination that GHGs from a source category contribute significantly to dangerous air pollution as a predicate to promulgating a NSPS for GHG emissions from that source category for the first time. 83 FR 65432 (December 20, 2018). The EPA subsequently issued a final rule that provided that it would not regulate GHGs under CAA section 111 from a source category unless the GHGs from the category exceed 3 percent of total U.S. GHG emissions, on grounds that GHGs emitted in a lesser amount do not contribute significantly to dangerous air pollution. 86 FR 2652 (January, 13 2021). Shortly afterwards, the D.C. Circuit granted an unopposed motion by the EPA for voluntary vacatur and remand of the final rule. *California v. EPA*, No. 21–1035, doc. 1893155 (D.C. Cir. April 5, 2021).

sufficiently broad to encompass shifting of generation from higher-emitting to lower-emitting sources. See 80 FR 64720 (October 23, 2015). The EPA then determined the “degree of emission limitation achievable through the application of the [BSER],” CAA section 111(a)(1), expressed as emission performance rates. See 80 FR 64667 (October 23, 2015). The EPA explained that a State would “have to ensure, through its plan, that the emission standards it establishes for its sources individually, in the aggregate, or in combination with other measures undertaken by the [S]tate, represent the equivalent of” those performance rates (80 FR 64667; October 23, 2015). Neither states nor sources were required to apply the specific measures identified in the BSER (80 FR 64667; October 23, 2015), and states could include trading or averaging programs in their State plans for compliance. See 80 FR 64840 (October 23, 2015).

Numerous states and private parties petitioned for review of the CPP before the D.C. Circuit. On February 9, 2016, the U.S. Supreme Court stayed the rule pending review, *West Virginia v. EPA*, 577 U.S. 1126 (2016), and the D.C. Circuit held the litigation in abeyance, and ultimately dismissed it, as the EPA reassessed its position. *American Lung Ass’n*, 985 F.3d at 937.

### 4. The CPP Repeal and ACE Rule

In 2019, the EPA repealed the CPP and replaced it with the ACE Rule. In contrast to its interpretation of CAA section 111 in the CPP, in the ACE Rule the EPA determined that the statutory “text and reasonable inferences from it” make “clear” that a “system” of emission reduction under CAA section 111(a)(1) “is limited to measures that can be applied to and at the level of the individual source,” (84 FR 32529; July 8, 2019); that is, the system must be limited to control measures that could be applied at and to each source to reduce emissions at each source. See 84 FR 32523–24 (July 8, 2019). Specifically, the ACE Rule argued that the requirements in CAA sections 111(d)(1), (a)(3), and (a)(6), that each State establish a standard of performance “for” “any existing source,” defined, in general, as any “building . . . [or] facility,” and the requirement in CAA section 111(a)(1) that the degree of emission limitation must be “achievable” through the “application” of the BSER, by their terms, impose this limitation. The EPA concluded that generation shifting is not such a control measure. See 84 FR 32546 (July 8, 2019). Based on its view that the CPP was a “major rule,” the EPA further

determined that, absent “a clear statement from Congress,” the term “‘system of emission reduction’” should not be read to encompass “generation-shifting measures.” See 84 FR 32529 (July 8, 2019). The EPA acknowledged, however, that “[m]arket-based forces ha[d] already led to significant generation shifting in the power sector,” (84 FR 32532; July 8, 2019), and that there was “likely to be no difference between a world where the CPP is implemented and one where it is not.” See 84 FR 32561 (July 8, 2019); the Regulatory Impact Analysis for the Repeal of the Clean Power Plan, and the Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 2–1 to 2–5.<sup>172</sup>

In addition, the EPA promulgated in the ACE Rule a new set of emission guidelines for existing coal-fired steam-generating EGUs. See 84 FR 32532 (July 8, 2019). In light of “the legal interpretation adopted in the repeal of the CPP,” (84 FR 32532; July 8, 2019)—which “limit[ed] ‘standards of performance’ to systems that can be applied at and to a stationary source,” (84 FR 32534; July 8, 2019)—the EPA found the BSER to be heat rate improvements alone. See 84 FR 32535 (July 8, 2019). The EPA listed various technologies that could improve heat rate (84 FR 32536; July 8, 2019), and identified the “degree of emission limitation achievable” by “providing ranges of expected [emission] reductions associated with each of the technologies.” See 84 FR 32537–38 (July 8, 2019).

The EPA also stated that, under the ACE Rule, compliance measures that the State plans could authorize the sources to implement “should correspond with the approach used to set the standard in the first place,” (84 FR 32556; July 8, 2019), and therefore must “apply at and to an individual source and reduce emissions from that source.” See 84 FR 32555–56 (July 8, 2019). The EPA concluded that various measures besides generation shifting—including averaging (*i.e.*, allowing multiple sources to average their emissions to meet an emission-reduction goal), and trading (*i.e.*, allowing sources to exchange emission credits or allowances)—did not meet that requirement. The EPA therefore barred states from using such measures in their plans. See 84 FR 32556 (July 8, 2019).

<sup>172</sup> [https://www.epa.gov/sites/default/files/2019-06/documents/utilities\\_ria\\_final\\_cpp\\_repeal\\_and\\_ace\\_2019-06.pdf](https://www.epa.gov/sites/default/files/2019-06/documents/utilities_ria_final_cpp_repeal_and_ace_2019-06.pdf).

5. D.C. Circuit Decision in *American Lung Association v. EPA Concerning the CPP Repeal and ACE Rule*

Numerous states and private parties petitioned for review of the CPP Repeal and ACE Rule. In 2021, the D.C. Circuit vacated the ACE Rule, including the CPP Repeal. *American Lung Ass'n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021). The court held, among other things, that CAA section 111(d) does not limit the EPA, in determining the BSER, to measures applied at and to an individual source. The court noted that “the sole ground on which the EPA defends its abandonment of the [CPP] in favor of the ACE Rule is that the text of [CAA section 111] is clear and unambiguous in constraining the EPA to use only improvements at and to existing sources in its [BSER].” 985 F.3d at 944. The court found “nothing in the text, structure, history, or purpose of [CAA section 111] that compels the reading the EPA adopted.” 985 F.3d at 957. The court explained that contrary to the ACE Rule, the above-noted requirements in CAA section 111 that each State must establish a standard of performance “for” any existing “building . . . [or] facility,” mean that the State must establish standards applicable to each regulated stationary source; and the requirements that the degree of emission limitation must be achievable through the “application” of the BSER could be read to mean that the sources must be able to apply the system to reduce emissions across the source category. None of these requirements, the court further explained, can be read to mandate that the BSER is limited to some measure that each source can apply to its own facility to reduce its own emissions in a specified amount. 985 F.3d at 944–51. The court likewise rejected the view that the CPP’s use of generation-shifting implicated a “major question” requiring unambiguous authorization by Congress. 985 F.3d at 958–68.

Having rejected the CPP Repeal Rule’s view, also reflected in the ACE Rule, that CAA section 111 unambiguously requires that the BSER be “one that can be applied to and at the individual source,” the court also “reject[ed] the ACE Rule’s exclusion from [CAA section 111(d)] of compliance measures” that do not meet that requirement. 985 F.3d at 957. Thus, the court held that CAA section 111 does not preclude states from allowing trading or averaging. The court explained that the ACE Rule’s premise for its view that compliance measures are limited to measures applied at and to an individual source is that BSER

measures are so limited, but the court further stated that this premise was invalid. The court added that in any event, CAA section 111(d) says nothing about the type of compliance measures states may adopt, regardless of what the EPA identifies as the BSER. *Id.* at 957–58.

The D.C. Circuit concluded that, because the EPA had relied on an “erroneous legal premise,” both the CPP Repeal Rule and the ACE Rule should be vacated. 985 F.3d at 995. The court did not decide, however, “whether the approach of the ACE Rule is a permissible reading of the statute as a matter of agency discretion,” 985 F.3d at 944, and instead “remanded to the EPA so that the Agency may ‘consider the question afresh,’” 985 F.3d at 995 (citations omitted). The court also rejected the arguments that the EPA cannot regulate CO<sub>2</sub> emissions from coal-fired power plants under CAA section 111(d) at all because it had already regulated mercury emissions from coal-fired power plants under CAA section 112. 985 F.3d at 988. In addition, the court held that the 2015 NSPS included a valid determination that greenhouse gases from the EGU source category contributed significantly to dangerous air pollution, which provided a sufficient basis for a CAA section 111(d) rule regulating greenhouse gases from existing fossil fuel-fired EGUs. *Id.* at 977.

Because the D.C. Circuit vacated the ACE Rule on the grounds noted above, it did not address the numerous other challenges to the ACE Rule, including the arguments by Petitioners that the heat rate improvement BSER was inadequate because of the limited amount of reductions it achieved and because the ACE Rule failed to include an appropriately specific degree of emission limitation.

Upon a motion from the EPA, the D.C. Circuit agreed to stay its mandate with respect to vacatur of the CPP Repeal, *American Lung Assn v. EPA*, No. 19–1140, Order (February 22, 2021), so that the CPP remained repealed. In its motion, the EPA explained that the CPP should remain repealed because the deadline for states to submit their plans under the CPP had long since passed. In addition, and most importantly, because of ongoing changes in electricity generation—in particular, retirements of coal-fired electricity generation—the emissions reductions that the CPP was projected to achieve had already been achieved by 2021. *American Lung Assn v. EPA*, No. 19–1140, Respondents’ Motion for a Partial Stay of Issuance of the Mandate (February 12, 2021).

Therefore, following the D.C. Circuit’s decision, no EPA rule under CAA section 111 to reduce GHGs from existing fossil fuel-fired EGUs remained in place.

6. U.S. Supreme Court Decision in *West Virginia v. EPA Concerning the CPP*

In 2022, the U.S. Supreme Court reversed the D.C. Circuit’s vacatur of the ACE Rule’s embedded repeal of the CPP. *West Virginia v. EPA*, 142 S. Ct. 2587 (2022). The Supreme Court made clear that CAA section 111 authorizes the EPA to determine the BSER and the degree of emission limitation that State plans must achieve. *Id.* at 2601–02. However, the Supreme Court invalidated the CPP’s generation-shifting BSER under the major questions doctrine. The Court characterized the generation-shifting BSER as “restructuring the Nation’s overall mix of electricity generation,” and stated that the EPA’s claim that CAA section 111 authorized it to promulgate generation shifting as the BSER was “not only unprecedented; it also effected a fundamental revision of the statute, changing it from one sort of scheme of regulation into an entirely different kind.” *Id.* at 2612 (internal quotation marks, brackets, and citation omitted). The Court explained that the EPA, in prior rules under CAA section 111, had set emissions limits based on “measures that would reduce pollution by causing the regulated source to operate more cleanly.” *Id.* at 2610. The Court noted with approval those “more traditional air pollution control measures,” and gave as examples “fuel-switching” and “add-on controls,” which, the Court observed, the EPA had considered in the CPP. *Id.* at 2611 (internal quotation marks and citation omitted). In contrast, the Court continued, generation-shifting was “unprecedented” because “[r]ather than focus on improving the performance of individual sources, it would improve the overall power system by lowering the carbon intensity of power generation. And it would do that by forcing a shift throughout the power grid from one type of energy source to another.” *Id.* at 2611–12 (internal quotation marks, emphasis, and citation omitted). The Court also emphasized that the adoption of generation shifting was based on a “very different kind of policy judgment [than prior CAA section 111 rules]: that it would be ‘best’ if coal made up a much smaller share of national electricity generation.” *Id.* at 2612. The Court recognized that a rule based on traditional measures “may end up causing an incidental loss of coal’s market share,” but emphasized that the

CPP was “obvious[ly] differen[t]” because, with its generation-shifting BSER, it “simply announc[ed] what the market share of coal, natural gas, wind, and solar must be, and then require[ed] plants to reduce operations or subsidize their competitors to get there.” *Id.* at 2613 n. 4. Beyond highlighting the novelty of generation shifting, the Court also emphasized “the magnitude and consequence” of the CPP. *Id.* at 2616. It noted “the magnitude of this unprecedented power over American industry,” *id.* at 2612 (internal quotation marks and citation omitted), and added that the EPA’s adoption of generation shifting “represent[ed] a transformative expansion in its regulatory authority.” *Id.* at 2610 (internal quotation marks and citation omitted). The Court also viewed the CPP as promulgating “a program that . . . Congress had considered and rejected multiple times.” *Id.* at 2614 (internal quotation marks and citation omitted). The Court explained that “[a]t bottom, the [CPP] essentially adopted a cap-and-trade scheme, or set of state cap-and-trade schemes, for carbon,” and that Congress “has consistently rejected proposals to amend the Clean Air Act to create such a program.” *Id.*

For these and related reasons, the Court viewed the CPP as raising a major question, and therefore, under the major questions doctrine, required “clear congressional authorization” as a basis. *Id.* (internal quotation marks and citation omitted). The EPA had defended generation shifting as qualifying as a “system of emission reduction” under CAA section 111(a)(1), but the Court found that the term “system” is “a vague statutory grant [that] is not close to the sort of clear authorization required” under the doctrine, *id.*, and, on that basis, invalidated the CPP.

The Court declined to address the D.C. Circuit’s conclusion that the text of CAA section 111 did not limit the type of “system” the EPA could consider as the BSER to measures applied at and to an individual source. *See id.* at 2615 (“We have no occasion to decide whether the statutory phrase ‘system of emission reduction’ refers *exclusively* to measures that improve the pollution performance of individual sources, such that all other actions are ineligible to qualify as the BSER.” (emphasis in original)). Nor did the Court address the scope of the States’ compliance flexibilities.

### C. Detailed Discussion of CAA Section 111 Requirements

This section discusses in more detail the key requirements of CAA section

111 for both new and existing sources that are relevant for these rulemakings.

#### Approach to the Source Category and Subcategorizing

CAA section 111 requires the EPA first to list stationary source categories that cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare and then to regulate new sources within each such source category. CAA section 111(b)(2) grants the EPA discretion whether to “distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing [new source] standards,” which we refer to as “subcategorizing.” The D.C. Circuit has stated that whether and how to subcategorize is a decision for which the EPA is entitled to a “high degree of deference” because it entails “scientific judgement.” *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999); *see Sierra Cub, v. Costle*, 657 F.2d 298, 318–19 (D.C. Cir. 1981).

Although CAA section 111(d)(1) does not by its terms address subcategorization, the EPA interprets it to authorize the Agency to exercise discretion as to whether and, if so, how to subcategorize, for the following reasons. CAA section 111(d)(1) provides a broad grant of authority to the EPA, directing it to “prescribe regulations which shall establish a procedure . . . under which each State shall submit to the Administrator a plan [with standards of performance for existing sources.]” The EPA promulgates emission guidelines under this provision directing the States to regulate existing sources. The Supreme Court has recognized the breadth of authority that CAA section 111(d) grants the EPA:

Although the States set the actual rules governing existing power plants, EPA itself still retains the primary regulatory role in Section 111(d). The Agency, not the States, decides the amount of pollution reduction that must ultimately be achieved. It does so by again determining, as when setting the new source rules, “the best system of emission reduction . . . that has been adequately demonstrated for [existing covered] facilities.”

*West Virginia*, 142 S. Ct. at 2601–02 (citations omitted). That this broad authority under CAA section 111(d) includes subcategorization follows from the fact that these provisions authorize the EPA to determine the BSER. Subcategorizing is a mechanism for determining different controls to be the BSER for different sets of sources. This is clear from CAA section 111(b)(2) itself, which authorizes the EPA to subcategorize new sources “for the purpose of establishing . . . standards.”

In addition, the EPA’s implementing regulations under CAA section 111(d), promulgated in 1975, 40 FR 53340 (November 17, 1975), provide that the Administrator will specify different emission guidelines or compliance times or both “for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or [based on] similar factors.”<sup>173</sup> In promulgating this provision, the EPA made clear the purpose of subcategorization is to tailor the BSER for different sets of sources:

EPA’s emission guidelines will reflect subcategorization within source categories where appropriate, taking into account differences in sizes and types of facilities and similar considerations, including differences in control costs that may be involved for sources located in different parts of the country. Thus, EPA’s emission guidelines will in effect be tailored to what is reasonably achievable by particular classes of existing sources. . . .

*Id.* at 53343.

The EPA’s authority to “distinguish among classes, types, and sizes within categories,” as provided under CAA section 111(b)(2), generally allows the Agency to place types of sources into subcategories when they have characteristics that are relevant to the controls they can apply to reduce their emissions. This is consistent with the commonly understood meaning of the term “type” in CAA section 111(b)(2): “a particular kind, class, or group,” or “qualities common to a number of individuals that distinguish them as an identifiable class.” *See https://www.merriam-webster.com/dictionary/type*. That is, subcategorization is appropriate for a set of sources that have qualities in common that are relevant for determining what controls are appropriate for those sources. And where the qualities in common are *not* relevant for determining what controls are appropriate, subcategorization is not appropriate. This view is consistent with the D.C. Circuit’s interpretation of CAA section 112(d)(1), which is a subcategorization provision that is substantially similar to CAA section 111(b)(2). In *NRDC v. EPA*, 489 F.3d 1364, 1375–76 (D.C. Cir. 2007), the court upheld the EPA’s decision under CAA section 112(d)(1) *not* to subcategorize sources subject to control requirements under CAA section 112(d)(3), known as the maximum achievable control technology (MACT) floor, on the basis of

<sup>173</sup> 40 CFR 60.22(b)(5), 60.22a(b)(5). Because the definition of subcategories depends on characteristics relevant to the BSER, and because those characteristics can differ as between new and existing sources, the EPA may establish different subcategories as between new and existing sources.

costs. That was because the EPA is not authorized to consider costs in setting the MACT floor.<sup>174</sup>

The EPA has developed subcategories in numerous rulemakings under CAA section 111 since it began promulgating them in the 1970s. These rulemakings have included subcategories on the basis of the size of the sources, see 40 CFR 60.40b(b)(1)–(2) (subcategorizing certain coal-fired steam generating units on the basis of heat input capacity); the types of fuel combusted, see *Sierra Club v. EPA*, 657 F.2d 298, 318–19 (D.C. Cir. 1981) (upholding a rulemaking that established different NSPS “for utility plants that burn coal of varying sulfur content”), 2015 NSPS, 80 FR 64510, 64602 (table 15) (October 23, 2015) (subdividing new combustion turbines on the basis of type of fuel combusted); the types of equipment used to produce products, see 81 FR 35824 (June 3, 2016) (promulgating separate NSPS for many types of oil and gas sources, such as centrifugal compressors, pneumatic controllers, and well sites); types of manufacturing processes used to produce product, see 42 FR 12022 (March 1, 1977) (announcing availability of final guideline document for control of atmospheric fluoride emissions from existing phosphate fertilizer plants) and “Final Guideline Document: Control of Fluoride Emissions From Existing Phosphate Fertilizer Plants, EPA–450/2–77–005 1–7 to 1–9, including table 1–2 (applying different control requirements for different manufacturing operations for phosphate fertilizer); levels of utilization of the sources, see 2015 NSPS, 80 FR 64510, 64602 (table 15) (October 23, 2015) (dividing new natural gas-fired combustion turbines into the subcategories of base load and non-base load); the activity level of the sources, see 81 FR 59276, 59278–79 (August 29, 2016) (dividing municipal solid waste landfills into the subcategories of active and closed landfills); and geographic location of the sources, see 71 FR 38482 (July 6, 2006) (SO<sub>2</sub> NSPS for stationary combustion turbines subcategories turbines on the basis of whether they are located in, for example, a continental area, a noncontinental area, the part of Alaska north of the Arctic Circle, and the rest of Alaska), see also *Sierra Club v. Costle*, 657 F.2d 298, 330 (D.C. Cir. 1981) (stating that the EPA could create different subcategories for new sources in the Eastern and Western U.S. for

requirements that depend on water-intensive controls). As these references indicate, the EPA has subcategorized many times in rulemaking under CAA sections 111(b) and 111(d) and based on a wide variety of physical, locational, and operational characteristics. It should also be noted that in some instances, the EPA has declined to subcategorize. *Lignite Energy Council*, 198 F.3d at 933 (upholding EPA decision not to subcategorize utility boilers for purposes of NO<sub>x</sub> NSPS on grounds that the decision was not arbitrary and capricious).

Regardless of whether the EPA subcategorizes within a source category for purposes of determining the BSER and the emission performance level for the emission guideline, a State retains certain flexibility in assigning standards of performance to its affected EGUs. The statutory framework for CAA section 111(d) emission guidelines, and the flexibilities available to States within that framework, are discussed below.

#### D.C. Circuit Order To Reinstate the ACE Rule

On October 27, 2022, the D.C. Circuit responded to the U.S. Supreme Court’s reversal by recalling its mandate for the vacatur of the ACE Rule. *American Lung Ass’n v. EPA*, No. 19–1140, Order (October 27, 2022). Accordingly, at that time, the ACE Rule came back into effect. The court also revised its judgment to deny petitions for review challenging the CPP Repeal Rule, consistent with the *West Virginia* decision, so that the CPP remains repealed. The court took further action denying several of the petitions for review unaffected by the Supreme Court’s decision in *West Virginia*, which means that certain parts of its 2021 decision in *American Lung Ass’n* remain valid. These parts include the holding that the EPA’s prior regulation of mercury emissions from coal-fired electric power plants under CAA section 112 does not preclude the Agency from regulating CO<sub>2</sub> from coal-fired electric power plants under CAA section 111, and the holding, discussed above, that the 2015 NSPS included a valid significant contribution determination and therefore provided a sufficient basis for a CAA section 111(d) rule regulating greenhouse gases from existing fossil fuel-fired EGUs. The court’s holding to invalidate amendments to the implementing regulations applicable to emission guidelines under CAA section 111(d) that extended the preexisting schedules for State and Federal actions and sources’ compliance, also remains valid. Based on the EPA’s stated intention to

replace the ACE Rule, the court stayed further proceedings with respect to the ACE Rule, including the various challenges that its BSER was flawed because it did not achieve sufficient emission reductions and failed to specify an appropriately specific degree of emission limitation.

#### 3. Key Elements of Determining a Standard of Performance

Congress first included the definition of “standard of performance” when enacting CAA section 111 in the 1970 Clean Air Act Amendments (CAAA), amended it in the 1977 CAAA, and then amended it again in the 1990 CAAA to largely restore the definition as it read in the 1970 CAAA. The current text of CAA section 111(a)(1) reads: “The term ‘standard of performance’ means a standard for emission of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” The D.C. Circuit has reviewed CAA section 111 rulemakings on numerous occasions since 1973,<sup>175</sup> and has developed a body of caselaw that interprets the term “standard of performance,” as discussed throughout this preamble.

The basis for standards of performance, whether promulgated by the EPA under CAA section 111(b) or established by the States under CAA section 111(d), is that the EPA determines the “degree of emission limitation” that is “achievable” by the sources by application of a “system of emission reduction” that the EPA determines is “adequately demonstrated,” “taking into account” the factors of “cost . . . nonair quality health and environmental impact and energy requirements,” and that the EPA determines to be the “best.” The D.C. Circuit has stated that in determining the “best” system, the EPA must also take into account “the amount of air

<sup>174</sup> See *Chem. Mfrs. Ass’n v. NRDC*, 470 U.S. 116, 131 (1985) (Court interprets similar subcategorization provision under the Clean Water Act to grant the EPA broad discretion).

<sup>175</sup> *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973); *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427 (D.C. Cir. 1973); *Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981); *Lignite Energy Council v. EPA*, 198 F.3d 930 (D.C. Cir. 1999); *Portland Cement Ass’n v. EPA*, 665 F.3d 177 (D.C. Cir. 2011); *American Lung Ass’n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021), *rev’d in part*, *West Virginia v. EPA*, 142 S. Ct. 2587 (2022). See also *Delaware v. EPA*, No. 13–1093 (D.C. Cir. May 1, 2015).

pollution”<sup>176</sup> reduced and the role of “technological innovation.”<sup>177</sup> The determination of the “best” system entails weighing the various factors against each other, and the D.C. Circuit has emphasized that the EPA has discretion in weighing the factors.<sup>178 179</sup>

The EPA’s overall approach to determining the BSER and degree of emission limitation achievable, which incorporates the various elements, is as follows: The EPA identifies “system[s] of emission reduction” that have been “adequately demonstrated” for a particular source category and determines the “best” of these systems after evaluating the amount of reductions, costs, any nonair health and environmental impacts, and energy requirements. As discussed below, for each of numerous subcategories, the EPA followed this approach to propose the BSER on the basis that the identified costs are reasonable and that the proposed BSER is rational in light of the statutory factors and other impacts, including the amount of emission reductions, that the EPA examined in its BSER analysis, consistent with governing precedent.

After determining the BSER, the EPA determines an achievable emission limit based on application of the BSER.<sup>180</sup> For a CAA section 111(b) rule, we determine the standard of performance that reflects the achievable emission limit. For a CAA section 111(d) rule, the States have the obligation of establishing standards of performance for the affected sources that reflect the degree of emission limitation that the EPA has determined. As discussed below, the EPA proposed these determinations in association with

each of the proposed BSER determinations.

The remainder of this subsection discusses each element in our general analytical approach.

#### a. System of Emission Reduction

The CAA does not define the phrase “system of emission reduction.” In *West Virginia v. EPA*, the Supreme Court recognized that historically, the EPA had looked to “measures that improve the pollution performance of individual sources and followed a “technology-based approach” in identifying systems of emission reduction. In particular, the Court identified “the sort of ‘systems of emission reduction’ [the EPA] had always before selected,” which included “‘efficiency improvements, fuel-switching,’ and ‘add-on controls.’” 142 S. Ct. at 2611 (quoting the Clean Power Plan).<sup>181</sup> Section 111 itself recognizes that such systems may include off-site activities that may reduce a source’s pollution contribution, identifying “precombustion cleaning or treatment of fuels” as a “system” of “emission reduction.” 42 U.S.C. 7411(a)(7)(B). A “system of emission reduction” thus, at a minimum, includes measures that an individual source applies that improve the emissions performance of that source. Measures are fairly characterized as improving the pollution performance of a source where they reduce the individual source’s overall contribution to pollution.

In *West Virginia*, the Supreme Court did not define the term “system of emissions reduction,” and so did not rule on whether “system of emission reduction” is limited to those measures that the EPA has historically relied upon. It did go on to apply the major questions doctrine to hold that the term “system” does not provide the requisite clear authorization to support the Clean Power Plan’s BSER, which the Court described as “carbon emissions caps based on a generation shifting approach.” Id. at 2614. While the Court did not define the outer bounds of the meaning of “system,” systems of emissions reduction like fuel switching, add-on controls, and efficiency improvements fall comfortably within

the scope of prior practice as recognized by the Supreme Court.

#### b. “Adequately Demonstrated”

Under CAA section 111(a)(1), an essential, although not sufficient, condition for a “system of emission reduction” to serve as the basis for an “achievable” emission limitation, is that the Administrator must determine that the system is “adequately demonstrated.” This means, according to the D.C. Circuit, that the system is “one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way.”<sup>182</sup> It does not mean that the system “must be in actual routine use somewhere.”<sup>183</sup> Rather, the court has said, “[t]he Administrator may make a projection based on existing technology, though that projection is subject to the restraints of reasonableness and cannot be based on ‘crystal ball’ inquiry.”<sup>184</sup> Similarly, the EPA may “hold the industry to a standard of improved design and operational advances, so long as there is substantial evidence that such improvements are feasible.”<sup>185</sup> Ultimately, the analysis “is partially dependent on ‘lead time,’” that is, “the time in which the technology will have to be available.”<sup>186</sup> The caselaw is clear that the EPA may treat a set of control measures as “adequately demonstrated” regardless of whether the measures are in widespread commercial use. For example, the D.C. Circuit upheld the EPA’s determination that selective catalytic reduction (SCR) was adequately demonstrated to reduce NO<sub>x</sub> emissions from coal-fired industrial boilers, even though it was a “new technology.” The court explained that “section 111 ‘looks toward what may fairly be projected for the regulated future, rather than the state of the art at present.’” *Lignite Energy Council*, 198 F.3d at 934 (citing *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973)). The Court added that the EPA may determine that control measures are “adequately demonstrated” through a “reasonable

<sup>176</sup> See *Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981).

<sup>177</sup> See *Sierra Club v. Costle*, 657 F.2d at 347.

<sup>178</sup> See *Lignite Energy Council*, 198 F.3d at 933.

<sup>179</sup> Although CAA section 111(a)(1) may be read to state that the factors enumerated in the parenthetical are part of the “adequately demonstrated” determination, the D.C. Circuit’s case law may be read to treat them as part of the “best” determination. See *Sierra Club v. Costle*, 657 F.2d at 330 (recognizing that CAA section 111 gives the EPA authority “when determining the best technological system to weigh cost, energy, and environmental impacts”). Nevertheless, it does not appear that those two approaches would lead to different outcomes. See, e.g., *Lignite Energy Council*, 198 F.3d at 933 (rejecting challenge to the EPA’s cost assessment of the “best demonstrated system”). Regardless of whether the factors are part of the “adequately demonstrated” determination or the “best” determination, our analysis and outcome would be the same.

<sup>180</sup> See, e.g., Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air pollutants Reviews (77 FR 49490, 49494; August 16, 2012) (describing the three-step analysis in setting a standard of performance).

<sup>181</sup> As noted in section V.B.4 of this preamble, the ACE Rule adopted the interpretation that CAA section 111(a)(1), by its plain language, limits “system of emission reduction” to those control measures that could be applied at and to each source to reduce emissions at each source. 84 FR 32523–24 (July 8, 2019). The EPA has proposed to reject that interpretation as too narrow. See “Implementing Regulations under 40 CFR part 60 Subpart Ba Adoption and Submittal of State Plans for Designated Facilities: Proposed Rule,” 87 FR 79176, 79208 (December 23, 2022).

<sup>182</sup> *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), cert. denied, 416 U.S. 969 (1974).

<sup>183</sup> *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (citations omitted) (discussing the Senate and House bills and reports from which the language in CAA section 111 grew).

<sup>184</sup> Ibid.

<sup>185</sup> *Sierra Club v. Costle*, 657 F.2d 298, 364 (D.C. Cir. 1981).

<sup>186</sup> *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (citations omitted).



extrapolation of [the control measures'] performance in other industries." *Id.*

The D.C. Circuit's view that the EPA may determine a "system of emission reduction" to be "adequately demonstrated" if the EPA reasonably projects that it will be available by a future date certain, is well-grounded in the purposes of CAA section 111 to reduce dangerous air pollutants. This view recognizes that pollution control systems may be complex and may require a predictable amount of time for sources across the source category to be able to design, acquire, install, and begin to operate them. In some instances, the control technology may be available, but the installation may be a multi-year process. For example, an existing coal-fired steam generating unit may require several years to plan, design, and install a Flue Gas Desulfurization (FGD) wet scrubber for the control of sulfur dioxide (SO<sub>2</sub>) emissions. Under these circumstances, common sense dictates that the EPA may promulgate a rulemaking that imposes a standard on the sources, but establishes the date for compliance as a date-certain in the future, consistent with the period of time the source needs to install and start operating the control equipment. In other circumstances, a system of emission reduction may be well-recognized as effective in controlling pollutants emitted by a large source category, but manufacturers may require a predictable amount of time to manufacture enough control equipment to cover the source category. In still other circumstances, the infrastructure needed to support the system so that it will cover sources across the category—whether physical infrastructure such as pipelines or human infrastructure such as skilled labor to install the equipment—may require a predictable amount of time to build out or develop in sufficient quantity to achieve such coverage. In all of these circumstances, adopting requirements under CAA section 111 at the time that the EPA is able to reasonably project the future deployment of the system of emission reduction, and establishing the date of compliance as a date-certain in the future, serves the statutory purposes of protecting against dangerous air pollution by ensuring that sources take action to control their emissions as soon as practicable. It should also be noted that because pollution control invariably entails additional cost, in some cases, the EPA's promulgation of regulatory requirements may be an essential trigger for the sometimes lengthy process of implementing pollution controls. In these cases,

delaying the promulgation of the regulatory requirements until the pollution controls can be immediately deployed would be futile.

#### c. Costs

Under CAA section 111(a)(1), in determining whether a particular emission control is the "best system of emission reduction . . . adequately demonstrated," the EPA is required to take into account "the cost of achieving [the emission] reduction." By its terms, this provision makes clear that the cost that the EPA must take into account is the cost to the affected source of the system of emission reduction. Although the Clean Air Act does not describe how the EPA is to account for costs, the D.C. Circuit has formulated the cost standard in various ways.<sup>187</sup> It has stated that the EPA may not adopt a standard the cost of which would be "exorbitant,"<sup>188</sup> "greater than the industry could bear and survive,"<sup>189</sup> "excessive,"<sup>190</sup> or "unreasonable."<sup>191</sup> These formulations appear to be synonymous, and for convenience, in these rulemakings, we are treating them as synonymous with reasonableness as well, so that a control technology may be considered the "best system of emission reduction . . . adequately demonstrated" if its costs are reasonable, but cannot be considered the best system if its costs are unreasonable.<sup>192</sup>

The D.C. Circuit has repeatedly upheld the EPA's consideration of cost in reviewing standards of performance. In several cases, the court upheld standards that entailed significant costs, consistent with Congress's view that "the costs of applying best practicable control technology be considered by the

<sup>187</sup> 79 FR 1430, 1464 (January 8, 2014).

<sup>188</sup> *Lignite Energy Council*, 198 F.3d at 933.

<sup>189</sup> *Portland Cement Ass'n v. EPA*, 513 F.2d 506, 508 (D.C. Cir. 1975).

<sup>190</sup> *Sierra Club v. Costle*, 657 F.2d 298, 343 (D.C. Cir. 1981).

<sup>191</sup> *Sierra Club v. Costle*, 657 F.2d 298, 343 (D.C. Cir. 1981).

<sup>192</sup> These cost formulations are consistent with the legislative history of CAA section 111. The 1977 House Committee Report noted:

In the [1970] Congress [sic: Congress's] view, it was only right that the costs of applying best practicable control technology be considered by the owner of a large new source of pollution as a normal and proper expense of doing business.

1977 House Committee Report at 184. Similarly, the 1970 Senate Committee Report stated:

The implicit consideration of economic factors in determining whether technology is "available" should not affect the usefulness of this section. The overriding purpose of this section would be to prevent new air pollution problems, and toward that end, maximum feasible control of new sources at the time of their construction is seen by the committee as the most effective and, in the long run, the least expensive approach.

S. Comm. Rep. No. 91–1196 at 16.

owner of a large new source of pollution as a normal and proper expense of doing business."<sup>193</sup> *See Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 440 (D.C. Cir. 1973);<sup>194</sup> *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 387–88 (D.C. Cir. 1973); *Sierra Club v. Costle*, 657 F.2d 298, 313 (D.C. Cir. 1981) (upholding NSPS imposing controls on SO<sub>2</sub> emissions from coal-fired power plants when the "cost of the new controls . . . is substantial. EPA estimates that utilities will have to spend tens of billions of dollars by 1995 on pollution control under the new NSPS.").

In its CAA section 111 rulemakings, the EPA has frequently used a cost-effectiveness metric, which determines the cost in dollars for each ton or other quantity of the regulated air pollutant removed through the system of emission reduction. *See, e.g.*, 81 FR 35824 (June 3, 2016) (NSPS for GHG and VOC emissions for the oil and natural gas source category); 71 FR 9866, 9870 (February 27, 2006) (NSPS for NO<sub>x</sub>, SO<sub>2</sub>, and PM emissions from fossil fuel-fired electric utility steam generating units); 61 FR 9905, 9910 (March 12, 1996) (NSPS and emissions guidelines for nonmethane organic compounds and landfill gas from new and existing municipal solid waste landfills); 50 FR 40158 (October 1, 1985) (NSPS for SO<sub>2</sub> emissions from sweetening and sulfur recovery units in natural gas processing plants). This metric allows the EPA to compare the amount a regulation would require sources to pay to reduce a particular pollutant across regulations and industries. In rules for the electric power sector, a metric that determines the dollar increase in the cost of a megawatt hour of electricity generated by the affected sources due to the emission controls, shows the cost of controls relative to the output of electricity. *See* section VII.F.3.b.iii(B)(5) of this preamble, which discusses \$/MWh costs of the March 15, 2023 Good Neighbor Plan for the 2015 Ozone NAAQS and the Cross-State Air Pollution Rule (CSAPR) 76 FR 48208 (August 8, 2011). This metric facilitates comparing costs across regulations and pollutants. In this proposal, as explained herein, the EPA looks at both of these metrics to assess the cost reasonableness of the proposed requirements.

<sup>193</sup> 1977 House Committee Report at 184.

<sup>194</sup> The costs for these standards were described in the rulemakings. *See* 36 FR 24876 (December 23, 1971), 37 FR 5767, 5769 (March 21, 1972).



d. Non-Air Quality Health and Environmental Impact and Energy Requirements

Under CAA section 111(a)(1), the EPA is required to take into account “any nonair quality health and environmental impact and energy requirements” in determining the BSER. Non-air quality health and environmental impacts may include the impacts of the disposal of byproducts of the air pollution controls, or requirements of the air pollution control equipment for water. *Portland Cement Ass’n v. Ruckelshaus*, 465 F.2d 375, 387–88 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974). Energy requirements may include the impact, if any, of the air pollution controls on the source’s own energy needs.

e. Sector or Nationwide Component of Factors in Determining the BSER

Another component of the D.C. Circuit’s interpretations of CAA section 111 is that the EPA may consider the various factors it is required to consider on a national or regional level and over time, and not only on a plant-specific level at the time of the rulemaking.<sup>195</sup> The D.C. Circuit based this interpretation—which it made in the 1981 *Sierra Club v. Costle* case regarding the NSPS for new power plants—on a review of the legislative history, stating,

[T]he Reports from both Houses on the Senate and House bills illustrate very clearly that Congress itself was using a long-term lens with a broad focus on future costs, environmental and energy effects of different technological systems when it discussed section 111.<sup>196</sup>

The court has upheld EPA rules that the EPA “justified . . . in terms of the policies of the Act,” including balancing long-term national and regional impacts. For example, the court upheld a standard of performance for SO<sub>2</sub> emissions from new coal-fired power plants on grounds that it—

reflects a balance in environmental, economic, and energy consideration by being sufficiently stringent to bring about substantial reductions in SO<sub>2</sub> emissions (3 million tons in 1995) yet does so at reasonable costs without significant energy penalties. . . .<sup>197</sup>

The EPA interprets this caselaw to authorize it to assess the impacts of the controls it is considering as the BSER, including their costs and implications for the energy system, on a sector-wide,

regional, or national basis, as appropriate. For example, the EPA may assess whether controls it is considering would create risks to the reliability of the electricity system in a particular area or nationwide and, if they would, to reject those controls as the BSER.

f. “Best”

In determining which adequately demonstrated system of emission reduction is the “best,” the D.C. Circuit has made clear that the EPA has broad discretion. Specifically, in *Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981), the court explained that “section 111(a) explicitly instructs the EPA to balance multiple concerns when promulgating a NSPS,”<sup>198</sup> and emphasized that “[t]he text gives the EPA broad discretion to weigh different factors in setting the standard,” including the amount of emission reductions, the cost of the controls, and the non-air quality environmental impacts and energy requirements.<sup>199</sup> In *Lignite Energy Council v. EPA*, 198 F.3d 930 (D.C. Cir. 1999), the court reiterated:

Because section 111 does not set forth the weight that should be assigned to each of these factors, we have granted the agency a great degree of discretion in balancing them. . . . EPA’s choice [of the ‘best system’] will be sustained unless the environmental or economic costs of using the technology are exorbitant. . . . EPA [has] considerable discretion under section 111.<sup>200</sup>

*See AEP v. Connecticut*, 564 U.S. 410, 427 (2011) (under CAA section 111, “The appropriate amount of regulation in any particular greenhouse gas-producing sector cannot be prescribed in a vacuum: . . . informed assessment of competing interests is required. Along with the environmental benefit potentially achievable, our Nation’s energy needs and the possibility of economic disruption must weigh in the balance. The Clean Air Act entrusts such complex balancing to the EPA in

<sup>198</sup> *Sierra Club v. Costle*, 657 F.2d at 319.

<sup>199</sup> *Sierra Club v. Costle*, 657 F.2d at 321; *see also New York v. Reilly*, 969 F.2d at 1150 (because Congress did not assign the specific weight the Administrator should assign to the statutory elements, “the Administrator is free to exercise [her] discretion” in promulgating an NSPS).

<sup>200</sup> *Lignite Energy Council*, 198 F.3d at 933 (paragraphing revised for convenience). *See New York v. Reilly*, 969 F.2d 1147, 1150 (D.C. Cir. 1992) (“Because Congress did not assign the specific weight the Administrator should accord each of these factors, the Administrator is free to exercise his discretion in this area.”); *see also NRDC v. EPA*, 25 F.3d 1063, 1071 (D.C. Cir. 1994) (The EPA did not err in its final balancing because “neither RCRA nor EPA’s regulations purports to assign any particular weight to the factors listed in subsection (a)(3). That being the case, the Administrator was free to emphasize or deemphasize particular factors, constrained only by the requirements of reasoned agency decisionmaking.”).

the first instance, in combination with State regulators. Each “standard of performance” the EPA sets must “tak[e] into account the cost of achieving [emissions] reduction and any nonair quality health and environmental impact and energy requirements.” (paragraphing revised; citations omitted)).

Moreover, the D.C. Circuit has also read “best” to authorize the EPA to consider factors in addition to the ones enumerated in CAA section 111(a)(1), that further the purpose of the statute. In *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973), the D.C. Circuit held that under CAA section 111(a)(1) as it read prior to the enactment of the 1977 CAA Amendments that added a requirement that the EPA take account of non-air quality environmental impacts, the EPA must consider “counter-productive environmental effects” in determining the BSER. *Id.* at 385. The court elaborated: “The standard of the ‘best system’ is comprehensive, and we cannot imagine that Congress intended that ‘best’ could apply to a system which did more damage to water than it prevented to air.” *Id.*, n.42. In *Sierra Club v. Costle*, 657 F.2d 298, 326, 346–47 (D.C. Cir. 1981), the court added that the EPA must consider the amount of emission reductions and technology advancement in determining BSER.

The court’s view that “best” includes additional factors that further the purpose of CAA section 111 is a reasonable interpretation of that term in its statutory context. The purpose of CAA section 111 is to reduce emissions of air pollutants that endanger public health or welfare. CAA section 111(b)(1)(A). The court reasonably surmised that the EPA’s determination of whether a system of emission reduction that reduced certain air pollutants is “best” should be informed by impacts that the system may have on other pollutants that affect public or welfare. *Portland Cement Ass’n*, 486 F.2d at 385. The Supreme Court confirmed the D.C. Circuit’s approach in *Michigan v. EPA* 576 U.S. 743 (2015), explaining that administrative agencies must engage in “reasoned decisionmaking” that, in the case of pollution control, cannot be based on technologies that “do even more damage to human health” than the emissions they eliminate. *Id.* at 751–52. After *Portland Cement Ass’n*, Congress revised CAA section 111(a)(1) to make explicit that in determining whether a system of emission reduction is the “best,” the EPA should account for non-air quality health and environmental impacts. By the same token, the EPA

<sup>195</sup> See 79 FR 1430, 1465 (January 8, 2014) (citing *Sierra Club v. Costle*, 657 F.2d at 351).

<sup>196</sup> *Sierra Club v. Costle*, 657 F.2d at 331 (citations omitted) (citing legislative history).

<sup>197</sup> *Sierra Club v. Costle*, 657 F.2d at 327–28 (quoting 44 FR 33583–33584; June 11, 1979).

takes the position that in determining whether a system of emission reduction is the “best,” the EPA may account for the impacts of the system on air pollutants other than the ones that are the subject of the CAA section 111 regulation.<sup>201</sup> We discuss immediately below other factors that the D.C. Circuit has held the EPA should account for in determining what system is the “best.”

#### g. Amount of Emissions Reductions

Consideration of the amount of emissions from the category of sources or the amount of emission reductions achieved as factors the EPA must consider in determining the “best system of emission reduction” is implicit in the plain language of CAA section 111(a)(1)—the EPA must choose the *best system of emission reduction*. Indeed, consistent with this plain language and the purpose of CAA section 111, the D.C. Circuit has stated that the EPA must consider the quantity of emissions at issue. See *Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981) (“we can think of no sensible interpretation of the statutory words “best . . . system” which would not incorporate the amount of air pollution as a relevant factor to be weighed when determining the optimal standard for controlling . . . emissions”).<sup>202</sup> The fact that the purpose of a “system of emission reduction” is to reduce emissions, and that the term itself explicitly incorporates the concept of reducing emissions, supports the court’s view that in determining whether a “system of emission reduction” is the “best,” the EPA must consider the amount of emission reductions that the system would yield. Even if the EPA

were not required to consider the amount of emission reductions, the EPA has the discretion to do so, on grounds that either the term “system of emission reduction” or the term “best” may reasonably be read to allow that discretion.

#### h. Expanded Use and Development of Technology

The D.C. Circuit has long held that Congress intended for CAA section 111 to create incentives for new technology and therefore that the EPA is required to consider technological innovation as one of the factors in determining the “best system of emission reduction.” See *Sierra Club v. Costle*, 657 F.2d at 346–47. The court has grounded its reading in the statutory text of CAA 111(a)(1), defining the term “standard of performance”.<sup>203</sup> In addition, the court’s interpretation finds support in the legislative history.<sup>204</sup> The legislative history identifies three different ways that Congress designed CAA section 111 to authorize standards of performance that promote technological improvement: (1) The development of technology that may be treated as the “best system of emission reduction . . . adequately demonstrated;” under CAA section 111(a)(1);<sup>205</sup> (2) the expanded use of the best demonstrated technology;<sup>206</sup> and (3) the development of emerging technology.<sup>207</sup> Even if the EPA were not required to consider technological innovation as part of its determination of the BSER, it would be reasonable for the EPA to consider it because technological innovation may be considered an element of the term “best,” particularly in light of

Congress’s emphasis on technological innovation.

#### i. Achievability of the Degree of Emission Limitation

For new sources, CAA section 111(b)(1)(B) and (a)(1) provides that the EPA must establish “standards of performance,” which are standards for emissions that reflect the degree of emission limitation that is “achievable” through the application of the BSER. According to the D.C. Circuit, a standard of performance is “achievable” if a technology can reasonably be projected to be available to an individual source at the time it is constructed that will allow it to meet the standard.<sup>208</sup> Moreover, according to the court, “[a]n achievable standard is one which is within the realm of the adequately demonstrated system’s efficiency and which, while not at a level that is purely theoretical or experimental, need not necessarily be routinely achieved within the industry prior to its adoption.”<sup>209</sup> To be achievable, a standard “must be capable of being met under most adverse conditions which can reasonably be expected to recur and which are not or cannot be taken into account in determining the ‘costs’ of compliance.”<sup>210</sup> To show a standard is achievable, the EPA must “(1) identify variable conditions that might contribute to the amount of expected emissions, and (2) establish that the test data relied on by the agency are representative of potential industry-wide performance, given the range of variables that affect the achievability of the standard.”<sup>211</sup>

Although the D.C. Circuit established these standards for achievability in cases concerning CAA section 111(b) new source standards of performance, generally comparable standards for achievability should apply under CAA section 111(d), although the BSER may differ as between new and existing sources due to, for example, higher costs

<sup>201</sup> See generally “Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review—Supplemental Notice of Proposed Rulemaking,” 87 FR 74702, 74765 (December 6, 2022) (proposing the BSER for reducing methane and VOC emissions from natural gas-driven controllers in the oil and natural gas sector on the basis of, among other things, impacts on emissions of criteria pollutants). In this preamble, for convenience, the EPA generally discusses the effects of controls on non-GHG air pollutants along with the effects of controls on non-air quality health and environmental impacts.

<sup>202</sup> *Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981) was governed by the 1977 CAAA version of the definition of “standard of performance,” which revised the phrase “best system of emission reduction” to read, “best technological system of continuous emission reduction.” As noted above, the 1990 CAAA deleted “technological” and “continuous” and thereby returned the phrase to how it read under the 1970 CAAA. The court’s interpretation of the 1977 CAAA phrase in *Sierra Club v. Costle* to require consideration of the amount of air emissions focused on the term “best,” and the terms “technological” and “continuous” were irrelevant to its analysis. It thus remains valid for the 1990 CAAA phrase “best system of emission reduction.”

<sup>203</sup> *Sierra Club v. Costle*, 657 F.2d at 346 (“Our interpretation of section 111(a) is that the mandated balancing of cost, energy, and nonair quality health and environmental factors embraces consideration of technological innovation as part of that balance. The statutory factors which EPA must weigh are broadly defined and include within their ambit subfactors such as technological innovation.”).

<sup>204</sup> See S. Rep. No. 91–1196 at 16 (1970) (“Standards of performance should provide an incentive for industries to work toward constant improvement in techniques for preventing and controlling emissions from stationary sources”); S. Rep. No. 95–127 at 17 (1977) (cited in *Sierra Club v. Costle*, 657 F.2d at 346 n. 174) (“The section 111 Standards of Performance . . . sought to assure the use of available technology and to stimulate the development of new technology”).

<sup>205</sup> *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (the best system of emission reduction must “look[] toward what may fairly be projected for the regulated future, rather than the state of the art at present”).

<sup>206</sup> 1970 Senate Committee Report No. 91–1196 at 15 (“The maximum use of available means of preventing and controlling air pollution is essential to the elimination of new pollution problems”).

<sup>207</sup> *Sierra Club v. Costle*, 657 F.2d at 351 (upholding a standard of performance designed to promote the use of an emerging technology).

<sup>208</sup> *Sierra Club v. Costle*, 657 F.2d 298, 364, n. 276 (D.C. Cir. 1981).

<sup>209</sup> *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433–34 (D.C. Cir. 1973), cert. denied, 416 U.S. 969 (1974).

<sup>210</sup> *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 433, n.46 (D.C. Cir. 1980).

<sup>211</sup> *Sierra Club v. Costle*, 657 F.2d 298, 377 (D.C. Cir. 1981) (citing *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416 (D.C. Cir. 1980)). In considering the representativeness of the source tested, the EPA may consider such variables as the “‘feedstock, operation, size and age’ of the source.” *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 433 (D.C. Cir. 1980). Moreover, it may be sufficient to “generalize from a sample of one when one is the only available sample, or when that one is shown to be representative of the regulated industry along relevant parameters.” *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 434, n.52 (D.C. Cir. 1980).

of retrofit. 40 FR 53340 (November 17, 1975). For existing sources, CAA section 111(d)(1) requires the EPA to establish requirements for State plans that, in turn, must include “standards of performance.” As the Supreme Court has recognized, this provision requires the EPA to promulgate emission guidelines that determine the BSER for a source category and then identify the degree of emission limitation achievable by application of the BSER. *See West Virginia v. EPA*, 142 S. Ct. 2587, 2601–02 (2022).<sup>212</sup>

The EPA has promulgated emission guidelines on the basis that the existing sources can achieve the degree of emission limitation described therein, even though under the RULOF provision of CAA section 111(d)(1), the State retains discretion to apply standards of performance to individual sources that are more or less stringent, which indicates that Congress recognized that the EPA may promulgate emission guidelines that are consistent with CAA section 111(d) even though certain individual sources may not be able to achieve the degree of emission limitation identified therein by applying the controls that the EPA determined to be the BSER. Note further that this requirement that the emission limitation be “achievable” based on the “best system of emission reduction . . . adequately demonstrated” indicates that the technology or other measures that the EPA identifies as the BSER must be technically feasible.

#### 4. EPA Promulgation of Emission Guidelines for States To Establish Standards of Performance

CAA section 111(d)(1) directs the EPA to promulgate regulations establishing a CAA section 110-like procedure under which States submit State plans that establish “standards of performance” for emissions of certain air pollutants from sources which, if they were new sources, would be regulated under CAA section 111(b), and that implement and enforce those standards of performance. The term “standard of performance” is defined under CAA section 111(a)(1), quoted above. Thus, CAA sections 111(a)(1) and (d)(1) collectively require the EPA to determine the BSER for the existing sources and, based on the BSER, to establish emission guidelines that identify the minimum amount of emission limitation that a State, in its State plan, must impose on its existing sources through standards of performance. Consistent with these CAA requirements, the EPA’s

regulations require that the EPA’s guidelines reflect—

the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator has determined has been adequately demonstrated from designated facilities.<sup>213</sup>

Following the EPA’s promulgation of emission guidelines, each State must determine the standards of performance for its existing sources, which the EPA’s regulations call “designated facilities.”<sup>214</sup> While the EPA specifies in emission guidelines the degree of emission limitation achievable through application of the best system of emission reduction, which it may express as a presumptive standard of performance, a State retains discretion in applying such a presumptive standard of performance to any particular designated facility. CAA section 111(d)(1) requires the EPA’s regulations to “permit the State in applying a standard of performance to any particular source . . . to take into consideration, among other factors, the remaining useful life the . . . source . . . .” Consistent with this statutory direction, the EPA’s regulations provide requirements for States that wish to apply standards of performance that deviate from an emission guideline. In December 2022, the EPA proposed to clarify these requirements, including the three circumstances under which States can invoke a particular source’s remaining useful life and other factors (RULOF), to apply a less stringent standard of performance. These proposed clarifications provided:

The State may apply a standard of performance to a particular source that is less stringent than otherwise required by an applicable emission guideline, taking into consideration remaining useful life and other factors, provided that the State demonstrates with respect to each such facility (or class of such facilities) that it cannot reasonably apply the best system of emission reduction to achieve the degree of emission limitation determined by the EPA, based on:

(1) Unreasonable cost of control resulting from plant age, location, or basic process design;

(2) Physical impossibility or technical infeasibility of installing necessary control equipment; or

(3) Other circumstances specific to the facilities (or class of facilities) that are fundamentally different from the information considered in the determination of the best system of emission reduction in the emission guidelines.

<sup>212</sup> 40 CFR 60.21(e), 60.21a(e).

<sup>214</sup> 40 CFR 60.21a(b), 60.24a(b).

87 FR 79176 (December 23, 2022), Docket ID No. EPA–HQ–OAR–2021–0527–0002 (proposed 40 CFR 60.24a(e)).<sup>215</sup> In addition, under CAA sections 111(d) and 116, the State is authorized to establish a standard of performance for any particular source that is more stringent than the presumptive standards contained in the EPA’s emission guidelines.<sup>216</sup> Thus, for any particular source, a State may apply a standard of performance that is either more stringent or less stringent than the presumptive standards of performance in the emission guidelines. The State must include the standards of performance in their State plans and submit the plans to the EPA for review.<sup>217</sup> Under CAA section 111(d)(2)(A), the EPA approves State plans that are determined to be “satisfactory.”

#### IV. Stakeholder Engagement

Prior to proposing these actions, the EPA conducted outreach to a broad range of stakeholders. The EPA also opened a non-regulatory pre-proposal docket to solicit public input on the Agency’s efforts to reduce GHG emissions from new and existing EGUs.<sup>218</sup> For additional details on stakeholder engagement, see the memorandum in the docket titled *Stakeholder Outreach*.

The EPA conducted two rounds of outreach to gather input for these proposals. In the first round of outreach, in early 2022, the EPA sought input in a variety of formats and settings from States, Tribal nations, and a broad range

<sup>215</sup> The EPA intends to finalize the December 2022 proposed revisions to the CAA section 111 implementation regulations in 40 CFR part 60, subpart Ba, including any changes made in response to public comments, prior to promulgating these emission guidelines. Thus, 40 CFR part 60, subpart Ba, as revised, would apply to these emission guidelines.

<sup>216</sup> 40 CFR 60.24a(f). The EPA’s December 2022 proposed revisions to 40 CFR part 60, subpart Ba reflect its current interpretation that the EPA has the authority to review and approve plans that include standards of performance that are more stringent than the presumptive standards in the EPA’s emission guidelines, thus making those more stringent requirements federally enforceable. 87 FR 79204 (December 23, 2022), Docket ID No. EPA–HQ–OAR–2021–0527–0002 (proposed 40 CFR 60.24a(m), (n)). In addition, CAA section 116 authorizes the state to set standards of performance for all of its sources that, together, are more stringent than the EPA’s emission guidelines.

<sup>217</sup> 40 CFR 60.23a. In January 2021, the D.C. Circuit Court of Appeals vacated the three-year deadline for state plan submissions of a final emission guideline in 40 CFR 60.23a(a)(1). The EPA’s December 2022 proposed revisions to subpart Ba would revise 60.23a to, *inter alia*, provide for a fifteen-month submission deadline. 87 FR 79182 (December 23, 2022), Docket ID No. EPA–HQ–OAR–2021–0527–0002 (proposed 40 CFR 60.23a(a)).

<sup>218</sup> Docket ID No. EPA–HQ–OAR–2022–0723.

of stakeholders on the state of the power sector and how the Agency's regulatory actions affect those trends. This outreach included State energy and environmental regulators; Tribal air regulators; power companies and trade associations representing investor-owned utilities, rural electric cooperatives, and municipal power agencies; environmental justice and community organizations; and labor, environmental, and public health organizations. A second round of outreach took place in August and September 2022, and focused on seeking input specific to this rulemaking. The EPA asked to hear perspectives, priorities, and feedback around five guiding questions, and encouraged public input to the nonregulatory docket (Docket ID No. EPA-HQ-OAR-2022-0723) on these questions as well.

The EPA also regularly interacts with other Federal agencies and departments whose activities intersect with the power sector, and in the course of developing these proposed rules the Agency conducted multiple discussions with these agencies to benefit from their expertise and to explore the potential interaction of these proposed rules with their independent missions and initiatives. Among other things, these discussions focused on the impacts of proposed investments in energy technology by the Department of Energy and Department of Treasury on the technical and economic analyses underlying this proposal. In addition, the EPA evaluated structures in these proposals to address reliability considerations with the Department of Energy.

## VII. Proposed Requirements for New and Reconstructed Stationary Combustion Turbine EGUs and Rationale for Proposed Requirements

### A. Overview

This section discusses and proposes requirements for stationary combustion turbine EGUs that commence construction or reconstruction after the date of publication of this proposed action. The EPA is proposing that those requirements will be codified in 40 CFR part 60, subpart TTTT. The EPA explains in section VII.B the two basic turbine technologies in use in the power sector and covered by 40 CFR part 60, subpart TTTT, simple cycle turbines and combined cycle turbines. It further explains how these technologies are used in the three subcategories of low load turbines, intermediate load turbines, and base load turbines. Section VII.C provides an overview of how stationary combustion turbines have

been previously regulated and how the EPA recently took comment on a proposed white paper on GHG mitigation options for stationary combustion turbines. Section VII.D discusses the EPA's decision to revisit the standards for turbines as part of the statutorily required 8-year review. Section VII.E discusses changes that the EPA is proposing in both applicability and subcategories in the new proposed 40 CFR part 60, subpart TTTTa as compared to those codified in 40 CFR part 60, subpart TTTT. Most notably, for natural gas-fired combustion turbines, the EPA is proposing three subcategories, a low load subcategory, an intermediate load subcategory, and a base load subcategory.

Section VII.F discusses the EPA's determination of the BSER for each of the subcategories of turbines. For low load combustion turbines, the EPA continues to believe that use of lower emitting fuels is the appropriate BSER. For intermediate load turbines, the EPA believes that both highly efficient generation and co-firing low-GHG hydrogen are appropriate components of the BSER, and that there will be enough low-GHG hydrogen at a reasonable price to supply the combustion turbines that would need to use it in 2032. For this reason, the EPA is proposing a two-component BSER for intermediate load combustion turbines, and a two-phase standard of performance. The first component of the BSER would be highly efficient generation (based on the performance of a highly efficient simple cycle turbine), with a corresponding first-phase standard of performance. The second component of the BSER is co-firing 30 percent (by volume) low-GHG hydrogen, along with continued use of highly efficient generation, with a corresponding second-phase standard of performance. The EPA is also soliciting comment on whether intermediate load combustion turbines should be subject to a more stringent third-phase standard based on higher levels of low-GHG hydrogen co-firing by 2038. Additionally, the EPA is soliciting comment on whether the electric sales threshold used to define intermediate and base load units should be reduced further.

For base load turbines, the EPA likewise believes that the BSER includes multiple components that correspond to a multi-phase standard of performance. This is appropriate based on consideration of the manufacturing and installation capabilities within the larger EGU category and other industries, and considerations of projected operation of combustion turbines in the future. For base load

turbines, the EPA is proposing two BSER pathways with corresponding standards of performance that new and reconstructed stationary combustion turbines may take—one BSER pathway is based on the use of 90 percent CCS and a separate BSER pathway is based on co-firing low-GHG hydrogen. The EPA proposes that the first component of the BSER for both pathways is highly efficient generation (based on the performance of a highly efficient combined cycle unit) and the second component of the BSER is based on the use of either 90 percent CCS in 2035 or co-firing 30 percent (by volume) low-GHG hydrogen in 2032, along with continued use of highly efficient generation for both pathways. For base load turbines that are subject to a second phase standard of performance based on a highly efficient combined cycle unit co-firing 30 percent (by volume) low-GHG hydrogen, the EPA proposes that those units also meet a third phase component of the BSER based on the co-firing of 96 percent (by volume) low-GHG hydrogen by 2038. These two BSER pathways both offer significant opportunities to reduce GHG emissions even though they may be available on slightly different timescales. The EPA seeks comment specifically on the percentages of hydrogen co-firing and CO<sub>2</sub> capture, the dates that meet the statutory BSER criteria for each pathway, whether the Agency should finalize both pathways as separate subcategories with separate standards of performance, or whether it should finalize one pathway with the option of meeting the standard of performance using either system of emission reduction—e.g., a single standard of 90 lb CO<sub>2</sub>/MWh-gross based on the application of CCS with 90 percent capture, which could also be met by co-firing 96 percent low-GHG hydrogen.

For both intermediate load and base load turbines, the standards of performance corresponding to both components of the BSER would apply to all new and reconstructed sources that commence construction or reconstruction after the publication date of this proposal. The EPA occasionally refers to these standards of performance as the phase-1, phase-2, or phase-3 standards.

### B. Combustion Turbine Technology

For purposes of 40 CFR part 60, subparts TTTT and TTTTa, stationary combustion turbines include both simple cycle and combined cycle EGUs. Simple cycle turbines operate in the Brayton thermodynamic cycle and include three primary components: a

multistage compressor, a combustion chamber (*i.e.*, combustor), and a turbine. The compressor is used to supply large volumes of high-pressure air to the combustion chamber. The combustion chamber converts fuel to heat and expands the now heated, compressed air to create shaft work. The shaft work drives an electric generator to produce electricity. Combustion turbines that recover their high-temperature exhaust—instead of venting it directly to the atmosphere—are combined cycle EGUs and can obtain additional useful electric output. A combined cycle EGU includes a heat recovery steam generator (HRSG) operating in the Rankine thermodynamic cycle. The HRSG receives the high-temperature exhaust and converts the heat to mechanical energy by producing steam that is then fed into a steam turbine that, in turn, drives a second electric generator. As the thermal efficiency of a stationary combustion turbine EGU is increased, less fuel is burned to produce the same amount of electricity, with a corresponding decrease in fuel costs and lower emissions of CO<sub>2</sub> and, generally, of other air pollutants. The greater the output of electric energy for a given amount of fuel energy input, the higher the efficiency of the electric generation process.

Combustion turbines serve various roles in the power sector. Some combustion turbines operate at low annual capacity factors and are available to provide temporary power during periods of high load demand. These turbines are often referred to as “peaking units.” Some combustion turbines operate at intermediate annual capacity factors and are often referred to as cycling or load-following units. Other combustion turbines operate at high annual capacity factors to serve base load demand and are often referred to as base load units. In this proposal, the EPA refers to these types of combustion turbines as low load, intermediate load, and base load, respectively.

Low load combustion turbines provide reserve capacity, support grid reliability, and generally provide power during periods of peak electric demand. As such, the units may operate at or near their full capacity, but only for short periods, as needed. Because these units only operate occasionally, capital expenses are a major factor in the overall cost of electricity, and often, the lowest capital cost (and generally less efficient) simple cycle EGUs are intended for use only during periods of peak electric demand. Due to their low efficiency, these units require more fuel per MWh of electricity produced and their operating costs tend to be higher.

Because of the higher operating costs, they are generally some of the last units in the dispatch order. Important characteristics for low load combustion turbines include their low capital costs, their ability to start and quickly ramp to full load, and their ability to operate at partial loads while maintaining acceptable emission rates and efficiencies. The ability to start and quickly attain full load is important to maximize revenue during periods of peak electric prices and to meet sudden shifts in demand. In contrast, under steady-state conditions, more efficient combined cycle EGUs are dispatched ahead of low load turbines and often operate at higher capacity factors.

Highly efficient simple cycle turbines and fast-start combined cycle turbines both offer different advantages and disadvantages when operating at intermediate loads. One of the roles of these intermediate or load-following EGUs is to provide dispatchable backup power to support variable renewable generating sources. A developer’s decision of whether to build a simple cycle combustion turbine or a combined cycle combustion turbine to serve intermediate load demand would be based on several factors related to the intended operation of the unit. These factors include how frequently the unit is expected to cycle between starts and stops, the predominant load level at which the unit is expected to operate, and whether this level of operation is expected to remain consistent or is expected to vary over the lifetime of the unit. While the owner/operator of an individual combustion turbine controls whether and how that unit will operate over time, they do not necessarily control the precise timing of dispatch for the unit in any given day or hour. Such short-term dispatch decisions are often made by regional grid operators that determine, on a moment-to-moment basis, which available individual units should operate to balance supply and demand and other requirements in an optimal manner, based on operating costs, price bids, and/or operational characteristics. However, operating permits for simple cycle turbines often contain restrictions on the annual hours of operation that owners/operators incorporate into longer term operating plans and short-term dispatch decisions.

Intermediate load combustion turbines vary their generation, especially during transition periods between low and high electric demand. Both high-efficiency simple cycle combustion turbines and fast-start combined cycle combustion turbines can fill this cycling role. While the ability to start and quickly ramp is

important, efficiency is also an important characteristic. These combustion turbines generally have higher capital costs than low load combustion turbines but are generally less expensive to operate.

Base load combustion turbines are designed to operate for extended periods at high loads with infrequent starts and stops. Quick start capability and low capital costs are less important than low operating costs. High-efficiency combined cycle combustion turbines typically fill the role of base load combustion turbines.

The increase in generation from variable renewable energy sources during the past decade has impacted the way in which firm dispatchable generating resources operate.<sup>219</sup> For example, the electric output from wind and solar generating sources fluctuates daily and seasonally due to increases and decreases in the wind speed or solar intensity. Due to this variable nature of wind and solar, firm dispatchable electric generating units are used to ensure the reliability of the electric grid. This requires technologies such as dispatchable power plants to start and stop and change load more frequently than was previously needed. Important characteristics of combustion turbines that provide firm backup capacity are the ability to start and stop quickly and the ability to quickly change loads. Natural gas-fired combustion turbines are much more flexible than coal-fired utility boilers in this regard and have played an important role in ensuring electric supply and demand are in balance during the past decade.

As discussed in section IV.F.2 of this preamble and in the accompanying RIA, the post-IRA 2022 reference case projects that natural gas-fired combustion turbines will continue to play an important role in meeting electricity demand. However, that role is projected to evolve as additional renewable and non-renewable low-GHG generation and energy storage technologies are added to the grid. Energy storage technologies can store energy during periods when generation from renewable resources is high relative to demand and provide electricity to the grid during other periods. This could reduce the need for fossil fuel-fired firm dispatchable power plants to start and stop as frequently. Consequently, in the future, natural gas-

<sup>219</sup> Dispatchable EGUs can be turned on and off and adjust the amount of power supplied to the electric grid based on the demand for electricity. Variable (sometimes referred to as intermittent) EGUs supply electricity based on external factors that are not controlled by the owner/operator of the EGU.

fired stationary combustion turbine EGUs may run at more stable operation and, thus, more efficiently (*i.e.*, at higher duty cycles and for longer periods of operation per start). The EPA is soliciting comment on whether this a likely scenario.

### C. Overview of Regulation of Stationary Combustion Turbines for GHGs

As explained earlier in this preamble, the EPA originally regulated stationary combustion turbine EGUs for emissions of GHGs in 2015 under 40 CFR part 60, subpart TTTT. In 40 CFR part 60, subpart TTTT, the EPA created three subcategories, two for natural gas-fired combustion turbines and one for multi-fuel-fired combustion turbines. For natural gas-fired turbines, the EPA created a subcategory for base load turbines and a separate subcategory for non-base load turbines. Base load turbines were defined as combustion turbines with electric sales greater than a site-specific electric sales threshold that is based on the design efficiency of the combustion turbine. Non-base load turbines were defined as combustion turbines with a capacity factor less than or equal to the site-specific electric sales threshold. For base load turbines, the EPA set a standard of 1,000 lb CO<sub>2</sub>/MWh-gross based on efficient combined cycle turbine technology and for non-base load and multi-fuel-fired turbines, the EPA set a standard based on the use of lower emitting fuels that varied from 120 lb CO<sub>2</sub>/MMBtu to 160 lb CO<sub>2</sub>/MMBtu depending upon whether the turbine burned primarily natural gas or other lower emitting fuels.

On April 21, 2022, the EPA issued an informational draft white paper, titled *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units*.<sup>220</sup> The draft document included discussion of the basic types of available stationary combustion turbines as well as factors that influence GHG emission rates from these sources. The technology discussion in the draft white paper included information on an array of new and existing control technologies and potential reduction measures for GHG emissions. These reduction measures included: the GHG reduction potential of various efficiency improvements; technologies capable of firing or co-firing alternative fuels such as hydrogen; the ongoing advancement of CCS projects with NGCC units; and the co-location of technologies that do not

emit onsite GHG emissions with EGUs, such as onsite renewables or short-duration energy storage.

The EPA provided an opportunity for the public to comment on this white paper to inform its approach to this proposed rulemaking. More than 30 groups or individuals provided public comments on the topics and technologies discussed in the draft white paper. Commenters included representatives from utilities, technology providers, trade associations, States, regulatory agencies, NGOs, and public health advocates. The information provided in the public comments was beneficial in enabling the EPA to review the current NSPS for new stationary combustion turbines and to develop the proposed revisions described in this preamble.

### D. Eight-Year Review of NSPS

CAA section 111(b)(1)(B) requires the Administrator to “at least every 8 years, review and, if appropriate, revise [the NSPS] . . .” The provision further provides that “the Administrator need not review any such standard if the Administrator determines that such review is not appropriate in light of readily available information on the efficacy of such [NSPS].”

The EPA promulgated the NSPS for GHG emissions for stationary combustion turbines in 2015. Announcements and modeling projections show companies are building new fossil fuel-fired combustion turbines and plan to continue building additional capacity. Because the emissions from this capacity have the potential to be large and these units are likely to have long lives (25 years or more), the EPA believes it is important to consider options to reduce emissions from these new units. In addition, the EPA is aware of developments concerning the types of control measures that may be available to reduce GHG emissions from new stationary combustion turbines. Accordingly, the EPA is proceeding to review and is proposing updated NSPS for newly constructed and reconstructed fossil fuel-fired stationary combustion turbines.

### E. Applicability Requirements and Subcategorization

This section describes the proposed amendments to the specific applicability criteria for non-fossil fuel-fired EGUs, industrial EGUs, CHP EGUs, and combustion turbines EGUs not connected to a natural gas pipeline. The EPA is also proposing certain changes to the applicability requirements for stationary combustion turbines affected

by this proposal as compared to those for sources affected by the 2015 NSPS. The proposed changes are described below and include the elimination of the multi-fuel-fired subcategory, further binning non-base load combustion turbines into low and intermediate load subcategories, and lowering the electric sales threshold for base load combustion turbines.

#### 1. Applicability Requirements

In general, the EPA refers to fossil fuel-fired EGUs that would be subject to a CAA section 111 NSPS as “affected” EGUs or units. An EGU is any fossil fuel-fired electric utility steam generating unit (*i.e.*, a utility boiler or IGCC unit) or stationary combustion turbine (in either simple cycle or combined cycle configuration). To be considered an affected EGU under the current NSPS at 40 CFR part 60, subpart TTTT, the unit must meet the following applicability criteria: The unit must: (1) Be capable of combusting more than 250 million British thermal units per hour (MMBtu/h) (260 gigajoules per hour (GJ/h)) of heat input of fossil fuel (either alone or in combination with any other fuel); and (2) serve a generator capable of supplying more than 25 MW net to a utility distribution system (*i.e.*, for sale to the grid).<sup>221</sup> However, 40 CFR part 60, subpart TTTT includes applicability exemptions for certain EGUs, including: (1) Non-fossil fuel-fired units subject to a federally enforceable permit that limits the use of fossil fuels to 10 percent or less of their heat input capacity on an annual basis; (2) CHP units that are subject to a federally enforceable permit limiting annual net electric sales to no more than either the unit’s design efficiency multiplied by its potential electric output, or 219,000 megawatt-hours (MWh), whichever is greater; (3) stationary combustion turbines that are not physically capable of combusting natural gas (*e.g.*, those that are not connected to a natural gas pipeline); (4) utility boilers and IGCC units that have always been subject to a federally enforceable permit limiting annual net electric sales to one-third or less of their potential electric output (*e.g.*, limiting hours of operation to less than 2,920 hours annually) or limiting annual electric sales to 219,000 MWh or less; (5) municipal waste combustors that are subject to 40 CFR part 60, subpart Eb; (6) commercial or industrial solid waste incineration units subject to 40 CFR part 60, subpart CCCC; and (7)

<sup>220</sup> <https://www.epa.gov/stationary-sources-air-pollution/white-paper-available-and-emerging-technologies-reducing>.

<sup>221</sup> The EPA refers to the capability to combust 250 MMBtu/h of fossil fuel as the “base load rating criterion.” Note that 250 MMBtu/h is equivalent to 73 MW or 260 GJ/h heat input.

certain projects under development, as discussed below.

a. Revisions to 40 CFR Part 60, Subpart TTTT

The EPA is proposing to amend 40 CFR 60.5508 and 60.5509 to reflect that 40 CFR part 60, subpart TTTT will remain applicable to steam generating EGUs and IGCC units constructed after January 8, 2014 or reconstructed after June 18, 2014. The EPA is also proposing that stationary combustion turbines that commenced construction after January 8, 2014 or reconstruction after June 18, 2014 and before May 23, 2023 that meet the relevant applicability criteria would be subject to 40 CFR part 60, subpart TTTT. Upon promulgation of 40 CFR part 60, subpart TTTTa, stationary combustion turbines that commence construction or reconstruction after May 23, 2023 and meet the relevant applicability criteria will be subject to 40 CFR part 60, subpart TTTTa.

b. Revisions to 40 CFR Part 60, Subpart TTTT That Would Also Be Included in 40 CFR Part 60, Subpart TTTTa

The EPA is proposing that 40 CFR part 60, subpart TTTT and 40 CFR part 60, subpart TTTTa use similar regulatory text except where specifically stated. This section describes proposed amendments that would be included in both subparts.

i. Applicability to Non-Fossil Fuel-Fired EGUs

The current non-fossil applicability exemption in 40 CFR part 60, subpart TTTT is based strictly on the combustion of non-fossil fuels (*e.g.*, biomass). To be considered a non-fossil fuel-fired EGU, the EGU must both (1) Be capable of combusting more than 50 percent non-fossil fuel and (2) be subject to a federally enforceable permit condition limiting the annual capacity factor for all fossil fuels combined of 10 percent (0.10) or less. The current language does not take heat input from non-combustion sources (*e.g.*, solar thermal) into account. Certain solar thermal installations have natural gas backup burners larger than 250 MMBtu/h. As currently written, these solar thermal installations would not be eligible to be considered non-fossil units because they are not capable of deriving more than 50 percent of their heat input from the combustion of non-fossil fuels. Therefore, solar thermal installations that include backup burners could meet the applicability criteria of 40 CFR part 60, subpart TTTT even if the burners are limited to an annual capacity factor of 10 percent or less. These EGUs would

readily comply with the standard of performance, but the reporting and recordkeeping would increase costs for these EGUs.

The EPA is proposing several amendments to align the applicability criteria with the original intent to cover only fossil fuel-fired EGUs. This would ensure that solar thermal EGUs with natural gas backup burners, like other types of non-fossil fuel-fired units in which most of their energy is derived from non-fossil fuel sources, are not subject to the requirements of 40 CFR part 60, subparts TTTT or TTTTa. Amending the applicability language to include heat input derived from non-combustion sources would allow these facilities to avoid the requirements of 40 CFR part 60, subparts TTTT or TTTTa by limiting the use of the natural gas burners to less than 10 percent of the capacity factor of the backup burners. Specifically, the EPA is proposing to amend the definition of non-fossil fuel-fired EGUs from EGUs capable of “combusting 50 percent or more non-fossil fuel” to EGUs capable of “*deriving 50 percent or more of the heat input from non-fossil fuel at the base load rating.*” (emphasis added). The definition of base load rating would also be amended to include the heat input from non-combustion sources (*e.g.*, solar thermal).

The proposed amended non-fossil fuel applicability language changing “combusting” to “deriving” will ensure that 40 CFR part 60, subparts TTTT and TTTTa cover the fossil fuel-fired EGUs, properly understood, that the original rule was intended to cover, while minimizing unnecessary costs to EGUs fueled primarily by steam generated without combustion (*e.g.*, through the use of solar thermal). The corresponding change in the base load rating to include the heat input from non-combustion sources is necessary to determine the relative heat input from fossil fuel and non-fossil fuel sources.

ii. Industrial EGUs

(A) Applicability to Industrial EGUs

In simple terms, the current applicability provisions in 40 CFR part 60, subpart TTTT require that an EGU be capable of combusting more than 250 MMBtu/h of fossil fuel and be capable of selling 25 MW to a utility distribution system to be subject to 40 CFR part 60, subpart TTTT. These applicability provisions exclude industrial EGUs. However, the definition of an EGU also includes “integrated equipment that provides electricity or useful thermal output.” This language facilitates the integration of non-emitting generation

and avoids energy inputs from non-affected facilities being used in the emission calculation without also considering the emissions of those facilities (*e.g.*, an auxiliary boiler providing steam to a primary boiler). This language could result in certain large processes being included as part of the EGU and meeting the applicability criteria. For example, the high-temperature exhaust from an industrial process (*e.g.*, calcining kilns, dryer, metals processing, or carbon black production facilities) that consumes fossil fuel could be sent to a HRSG to produce electricity. If the industrial process is more than 250 MMBtu/h heat input and the electric sales exceed the applicability criteria, then the unit could be subject to 40 CFR part 60, subparts TTTT or TTTTa. This is potentially problematic for multiple reasons. First, it is difficult to determine the useful output of the EGU (*i.e.*, HRSG) since part of the useful output is included in the industrial process. In addition, the fossil fuel that is combusted might have a relatively high CO<sub>2</sub> emissions rate on a lb/MMBtu basis, making it potentially problematic to meet the standard of performance using efficient generation. This could result in the owner/operator reducing the electric output of the industrial facility to avoid the applicability criteria. Finally, the compliance costs associated with 40 CFR part 60, subparts TTTT or TTTTa could discourage the development of environmentally beneficial projects.

To avoid these outcomes, the EPA is proposing to amend the applicability provision that exempts EGUs where greater than 50 percent of the heat input is derived from an industrial process that does not produce any electrical or mechanical output or useful thermal output that is used outside the affected EGU.<sup>222</sup> Reducing the output or not developing industrial electric generating projects where the majority of the heat input is derived from the industrial process itself would not necessarily result in reductions in GHG emissions from the industrial facility. However, the electricity that would have been produced from the industrial project could still be needed. Therefore, projects of this type provide significant environmental benefit with little if any additional emissions. Including these types of projects would result in regulatory burden without any

<sup>222</sup> Auxiliary equipment such as boilers or combustion turbines that provide heat or electricity to the primary EGU (including to any control equipment) would still be considered integrated equipment and included as part of the affected facility.



associated environmental benefit and could discourage project development, leading to potential overall increases in GHG emissions.

#### (B) Industrial EGUs Electric Sales Threshold Permit Requirement

The current electric sales applicability exemption in 40 CFR part 60, subpart TTTT for non-CHP steam generating units includes the provision that EGUs have “*always been subject to a federally enforceable permit limiting annual net electric sales to one-third or less of their potential electric output (e.g., limiting hours of operation to less than 2,920 hours annually) or limiting annual electric sales to 219,000 MWh or less*” (emphasis added). The justification for this restriction includes that the 40 CFR part 60, subpart Da applicability language includes “constructed for the purpose of . . .” and the Agency concluded that the intent was defined by permit conditions (80 FR 64544; October 23, 2015). This applicability criterion is important for determining applicability with both the new source CAA section 111(b) requirements and if existing steam generating units are subject to the existing source CAA section 111(d) requirements. For steam generating units that commenced construction after September 18, 1978, the applicability of 40 CFR part 60, subpart Da, would be relatively clear by what criteria pollutant NSPS is applicable to the facility. However, for steam generating units that commenced construction prior to September 18, 1978, or where the owner/operator determined that criteria pollutant NSPS applicability was not critical to the project (e.g., emission controls were sufficient to comply with either the EGU or industrial boiler criteria pollutant NSPS), owners/operators might not have requested an electric sales permit restriction be included in the operating permit. Under the current applicability language, some onsite EGUs could be covered by the existing source CAA section 111(d) requirements even if they have never sold electricity to the grid. To avoid covering these industrial EGUs, the EPA is proposing to amend the electric sales exemption in 40 CFR part 60, subparts TTTT and TTTTa to read, “annual net-electric sales *have never exceeded one-third of its potential electric output or 219,000 MWh, whichever is greater, and is*” (the “*always been*” would be deleted) subject to a federally enforceable permit limiting annual net electric sales to one-third or less of their potential electric output (e.g., limiting hours of operation to less than 2,920 hours annually) or limiting annual electric sales to 219,000

MWh or less” (emphasis added). EGUs that reduce current generation would continue to be covered as long as they sold more than one-third of their potential electric output at some time in the past. The proposed revisions would simply make it possible for an owner/operator of an existing industrial EGU to provide evidence to the Administrator that the facility has never sold electricity in excess of the electricity sales threshold and to modify their permit to limit sales in the future. Without the amendment, owners/operators of any non-CHP industrial EGU capable of selling 25 MW would be subject to the existing source CAA section 111(d) requirements even if they have never sold any electricity. Therefore, the EPA is proposing the exemption to eliminate the requirement that existing industrial EGUs must have always been subject to a permit restriction limiting net electric sales.

#### iii. Determination of the Design Efficiency

The design efficiency (i.e., the efficiency of converting thermal energy to useful energy output) of a combustion turbine is used to determine the electric sales applicability threshold and is relevant to both new and existing EGUs.<sup>223</sup> The sales criteria are based in part on the individual EGU design efficiency. Three methods for determining the design efficiency are currently provided in 40 CFR part 60, subpart TTTT.<sup>224</sup> Since the 2015 NSPS was finalized, the EPA has become aware that owners/operators of certain existing EGUs do not have records of the original design efficiency. These units are not able to readily determine whether they meet the applicability criteria and are therefore subject to the CAA section 111(d) requirements for existing sources in the same way that 111(b) sources would be able to determine if the facility meets the applicability criteria. Many of these EGUs are CHP units and it is likely they do not meet the applicability criteria. However, the language in the 2015 NSPS would require them to conduct additional testing to demonstrate this. The requirement would result in burden to the regulated community without any environmental benefit. The electricity

<sup>223</sup> While the EPA could specifically allow different methods to determine the design efficiency in the 111(d) existing source emission guidelines, the Agency is proposing to align the criteria for regulatory clarity.

<sup>224</sup> 40 CFR part 60, subpart TTTT currently lists ASME PTC 22 Gas Turbines, ASME PTC 46 Overall Plant Performance, and ISO 2314 Gas turbines acceptance tests as approved methods to determine the design efficiency.

generating market has changed, in some cases dramatically, during the lifetime of existing EGUs, especially concerning ownership. As a result of acquisitions and mergers, original EGU design efficiency documentation as well as performance guarantee results that affirmed the design efficiency, may no longer exist. Moreover, such documentation and results may not be relevant for current EGU efficiencies, as changes to original EGU configurations, upon which the original design efficiencies were based, render those original design efficiencies moot, meaning that there would be little reason to maintain former design efficiency documentation since it would not comport with the efficiency associated with current EGU configurations. As the three specified methods would rely on documentation from the original EGU configuration performance guarantee testing, and results from that documentation may no longer exist or be relevant, it is appropriate to allow other means to demonstrate EGU design efficiency. To reduce compliance burden, the EPA is proposing in 40 CFR part 60, subparts TTTT and TTTTa to allow alternative methods as approved by the Administrator on a case-by-case basis. Owners/operators of EGUs would petition the Administrator in writing to use an alternate method to determine the design efficiency. The Administrator’s discretion is intentionally left broad and could extend to other American Society of Mechanical Engineers (ASME) or International Organization for Standardization (ISO) methods as well as to operating data to demonstrate the design efficiency of the EGU. The EPA is also proposing to change the applicability of paragraph 60.8(b) in table 3 of 40 CFR part 60, subpart TTTT from “no” to “yes” and that the applicability of paragraph 60.8(b) in table 3 of 40 CFR part 60, subpart TTTTa is “yes.” This would allow the Administrator to approve alternatives to the test methods specified in 40 CFR part 60, subparts TTTT and TTTTa.

#### c. Applicability for 40 CFR Part 60, Subpart TTTTa

This section describes proposed amendments that would only be incorporated into 40 CFR part 60, subpart TTTTa and would differ from the requirements in 40 CFR part 60, subpart TTTT.

##### i. Proposed Applicability

Section 111 of the CAA defines a new or modified source for purposes of a given NSPS as any stationary source



that commences construction or modification after the publication of the proposed regulation. Thus, any standards of performance the Agency finalizes as part of this rulemaking will apply to EGUs that commence construction or reconstruction after the date of this proposal. EGUs that commenced construction after the date of the proposal for the 2015 NSPS and by the date of this proposal will remain subject to the standards of performance promulgated in the 2015 NSPS. A modification is any physical change in, or change in the method of operation of, an existing source that increases the amount of any air pollutant emitted to which a standard applies.<sup>225</sup> The NSPS General Provisions (40 CFR part 60, subpart A) provide that an existing source is considered a new source if it undertakes a reconstruction.<sup>226</sup>

The EPA is proposing the same applicability requirements in 40 CFR part 60, subpart TTTT as the applicability requirements in 40 CFR part 60, subpart TTTT. The stationary combustion turbine must meet the following applicability criteria: The stationary combustion turbine must: (1) Be capable of combusting more than 250 million British thermal units per hour (MMBtu/h) (260 gigajoules per hour (GJ/h)) of heat input of fossil fuel (either alone or in combination with any other fuel); and (2) serve a generator capable of supplying more than 25 MW net to a utility distribution system (*i.e.*, for sale to the grid).<sup>227</sup> In addition, the EPA is proposing in 40 CFR part 60, subpart TTTT to include applicability exemptions for stationary combustion turbines that are: (1) Capable of deriving 50 percent or more of the heat input from non-fossil fuel at the base load rating and subject to a federally enforceable permit condition limiting the annual capacity factor for all fossil fuels combined of 10 percent (0.10) or less; (2) combined heat and power units subject to a federally enforceable permit condition limiting annual net-electric sales to no more than 219,000 MWh or the product of the design efficiency and the potential electric output, whichever is greater; (3) serving a generator along with other steam generating unit(s), IGCC, or stationary combustion turbine(s) where the effective generation capacity is 25 MW or less; (4) municipal waste combustors that are subject to 40 CFR part 60, subpart Eb; (5) commercial

or industrial solid waste incineration units subject to 40 CFR part 60, subpart CCCC; and (6) deriving greater than 50 percent of heat input from an industrial process that does not produce any electrical or mechanical output that is used outside the affected stationary combustion turbine.

The EPA is proposing to apply the same requirements to combustion turbines in non-continental areas (*i.e.*, Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, and the Northern Mariana Islands) and non-contiguous areas (non-continental areas and Alaska) as the EPA is proposing for comparable units in the contiguous 48 States. However, new units in non-continental and non-contiguous areas may operate on small, isolated electric grids, may operate differently from units in the contiguous 48 States, and may have limited access to certain components of the proposed BSER due to their uniquely isolated geography or infrastructure. Therefore, the EPA is soliciting comment on whether combustion turbines in non-continental and non-contiguous areas should be subject to different requirements.

#### ii. Applicability to CHP Units

For 40 CFR part 60, subpart TTTT, owner/operators of CHP units calculate net electric sales and net energy output using an approach that includes “at least 20.0 percent of the total gross or net energy output consists of electric or direct mechanical output.” It is unlikely that a CHP unit with a relatively low electric output (*i.e.*, less than 20.0 percent) would meet the applicability criteria. However, if a CHP unit with less than 20.0 percent of the total output consisting of electricity were to meet the applicability criteria, the net electric sales and net energy output would be calculated the same as for a traditional non-CHP EGU. Even so, it is not clear that these CHP units would have less environmental benefit per unit of electricity produced than more traditional CHP units. For 40 CFR part 60, subpart TTTT, the EPA is proposing to eliminate the restriction that CHP units produce at least 20.0 percent electrical or mechanical output to qualify for the CHP-specific method for calculating net electric sales and net energy output.

In the 2015 NSPS, the EPA did not issue standards of performance for certain types of sources—including industrial CHP units and CHPs that are subject to a federally enforceable permit limiting annual net electric sales to no more than the unit’s design efficiency multiplied by its potential electric

output, or 219,000 MWh or less, whichever is greater. For CHP units, the approach in 40 CFR part 60, subpart TTTT for determining net electric sales for applicability purposes allows the owner/operator to subtract the purchased power of the thermal host facility. The intent of the approach is to determine applicability similarly for third-party developers and CHP units owned by the thermal host facility.<sup>228</sup> However, as written in 40 CFR part 60, subpart TTTT, each third-party CHP unit would subtract the entire electricity use of the thermal host facility when determining its net electric sales. It is clearly not the intent of the provision to allow multiple third-party developers that serve the same thermal host to all subtract the purchased power of the thermal host facility when determining net electric sales. This would result in counting the purchased power multiple times. In addition, it is not the intent of the provision to allow a CHP developer to provide a trivial amount of useful thermal output to multiple thermal hosts and then subtract all the thermal hosts’ purchased power when determining net electric sales for applicability purposes. The proposed approach in 40 CFR part 60, subpart TTTT would set a limit to the amount of thermal host purchased power that a third-party CHP developer can subtract for electric sales when determining net electric sales equivalent to the percentage of useful thermal output provided to the host facility by the specific CHP unit. This approach would eliminate both circumvention of the intended applicability by sales of trivial amounts of useful thermal output and double counting of thermal host-purchased power.

Finally, to avoid potential double counting of electric sales, the EPA is proposing that for CHP units determining net electric sales, purchased power of the host facility would be determined based on the percentage of thermal power provided to the host facility by the specific CHP facility.

#### iii. Non-Natural Gas Stationary Combustion Turbines

There is currently an exemption in 40 CFR part 60, subpart TTTT for

<sup>228</sup> For contractual reasons, many developers of CHP units sell all the generated electricity to the electricity distribution grid even though in actuality a significant portion of the generated electricity is used onsite. Owners/operators of both the CHP unit and thermal host can subtract the site purchased power when determining net electric sales. Third party developers that do not own the thermal host can also subtract the purchased power of the thermal host when determining net electric sales for applicability purposes.

<sup>225</sup> 40 CFR 60.2.

<sup>226</sup> 40 CFR 60.15(a).

<sup>227</sup> The EPA refers to the capability to combust 250 MMBtu/h of fossil fuel as the “base load rating criterion.” Note that 250 MMBtu/h is equivalent to 73 MW or 260 GJ/h heat input.

stationary combustion turbines that are not physically capable of combusting natural gas (e.g., those that are not connected to a natural gas pipeline). While combustion turbines not connected to a natural gas pipeline meet the general applicability of 40 CFR part 60, subpart TTTT, these units are not subject to any of the requirements. The EPA is proposing requirements for new and reconstructed combustion turbines that are not capable of combusting natural gas. As described in the standards of performance section, the Agency is proposing that owners/operators of combustion turbines burning fuels with a higher heat input emission rate than natural gas would adjust the natural gas-fired emissions rate by the ratio of the heat input-based emission rates. The overall result is that new stationary combustion turbines combusting fuels with higher GHG emissions rates than natural gas on a lb CO<sub>2</sub>/MMBtu basis would have to maintain the same efficiency compared to a natural gas-fired combustion turbine and comply with a standard of performance based on the identified BSER. Therefore, the EPA is not including in 40 CFR part 60, subpart TTTTa, the exemption for stationary combustion turbines that are not physically capable of combusting natural gas.

#### *F. Determination of the Best System of Emission Reduction (BSER) for New and Reconstructed Stationary Combustion Turbines*

In this section, the EPA describes the technologies it is proposing to determine are the BSER for each of the subcategories of new and reconstructed combustion turbines that commence construction after the date of this proposal, and explains its basis for proposing those controls, and not others, as the BSER. The controls that the EPA is evaluating include combusting non-hydrogen lower emitting fuels (e.g., natural gas and distillate oil), using highly efficient generation, using CCS, and co-firing with low-GHG hydrogen.

For the low-load subcategory, the EPA is proposing the use of lower emitting fuels as the BSER. For the intermediate load subcategory, the EPA is proposing an approach under which the BSER is made up of two components that each represent a different set of controls, and that form the basis of standards of performance that apply in multiple phases. That is, affected facilities—which are facilities that commence construction or reconstruction after the date of this proposed rulemaking—must meet the first phase of the standard of

performance, which is based on the application of the first component of the BSER, highly efficient generation, by the date the rule is finalized; and then meet the second and more stringent phase of the standard of performance, which is based on co-firing 30 percent (by volume) low-GHG hydrogen by 2032. The EPA is also soliciting comment on whether the intermediate load subcategory should apply a third component of BSER, which is co-firing 96 percent (by volume) low-GHG hydrogen by 2038. In addition, the EPA is also soliciting comment on whether the low load subcategory should apply the second component of BSER, which is co-firing 30 percent (by volume) low-GHG hydrogen by 2032. These latter components of BSER would also include the continued application of highly efficient generation.

For the base load subcategory, the EPA is also proposing a multi-component BSER and an associated multi-phase standard of performance. The first component of the BSER, as with intermediate load combustion turbines, is highly efficient generation. New base load combustion turbines would be required to meet a phase one standard of performance based on the application of the first component of the BSER upon initial startup of the source. Subsequently, EPA is proposing two technology pathways as potential BSER for base load combustion turbines, with corresponding standards of performance. The first technology pathway is based on 90 percent CCS, which base load combustion turbines may install and begin to operate to meet the standard of performance by 2035. The second technology pathway is based on co-firing low-GHG hydrogen, which EPA proposes base load combustion turbines may undertake in two steps—by co-firing 30 percent (by volume) low-GHG hydrogen to meet the second phase of the standard of performance by 2032 and, then by co-firing 96 percent (by volume) low-GHG hydrogen to meet the third phase of the standard of performance by 2038. Throughout, base load turbines, like intermediate load turbines, would remain subject to the BSER of highly efficient generation.

This approach reflects the EPA's view that the BSER for the intermediate load and base load subcategories should reflect the deeper reductions in GHG emissions that can be achieved by implementing CCS and co-firing low-GHG hydrogen but recognizes that building the infrastructure required to support widespread use of CCS and low-GHG hydrogen in the power sector will take place on a multi-year time

scale. Accordingly, newly constructed or reconstructed facilities must be aware of their need to ramp toward more stringent phases of the standards, which reflect application of the more stringent controls in the BSER, either through use of co-firing a lower level of low-GHG hydrogen by 2032 and a higher level of low-GHG hydrogen by 2038 or through use of CCS by 2035. The EPA is also soliciting comment on the potential for an earlier compliance date for the second phase, for instance, 2030 for units co-firing 30 percent hydrogen by volume and 2032 for units installing CCS.

For the base load subcategory, the EPA is proposing both potential BSER pathways because it believes there may be more than one viable BSER pathway for base load combustion turbines to significantly reduce their CO<sub>2</sub> emissions and believes there is value in receiving comment on, and potentially finalizing, both BSER pathways to enable project developers to elect how they will reduce their CO<sub>2</sub> emissions on timeframes that make sense for each BSER pathway. The EPA recognizes that standards of performance are technology neutral and that if the EPA finalizes a standard based on application of CCS, units could meet that standard using co-firing of low-GHG hydrogen. The EPA solicits comment on whether co-firing of low-GHG hydrogen should be considered a compliance pathway for sources to meet a single standard of performance based on application of CCS rather than a separate BSER pathway. The EPA believes that there will be earlier opportunities for units to begin co-firing lower amounts of low-GHG hydrogen than to install and begin operating 90 percent CCS systems. However, it will likely take a longer timeframe for those units to then ramp up to co-firing significant quantities of low-GHG hydrogen. Therefore, in this proposal, the EPA presents these pathways as separate subcategories, while soliciting comment on the option of finalizing a single standard of performance based on application of CCS.

Specifically, with respect to the first phase of the standards of performance, for both the intermediate load and base load subcategories, the EPA is proposing that the BSER is highly efficient generating technology—combined cycle technology for the base load subcategories and simple cycle technology for the intermediate load subcategory—as well as operating and maintaining it efficiently. The EPA sometimes refers to highly efficient generating technology in combination with the best operating and

maintenance practices as highly efficient generation.

The affected sources must meet standards based on this efficient generating technology upon the effective date of the final rule. With respect to the second phase of the standards of performance, for base load combustion turbines adopting the CCS pathway, the BSER includes the use of 90 percent CCS. These sources would be required to meet standards of performance by 2035 that reflect application of both components of the BSER—highly efficient generation and CCS—and thus are more stringent. For base load combustion turbines adopting the low-GHG hydrogen co-firing pathway and

for intermediate load combustion turbines, the BSER includes co-firing 30 percent by volume (12 percent by heat input) low-GHG hydrogen. These sources would be required to meet second phase standards of performance by 2032 that reflect the application of both components of the BSER—in this case, highly efficient generation and co-firing 30 percent (by volume) low-GHG hydrogen—and that are, again, more stringent. Finally, for base load combustion turbines adopting the low-GHG hydrogen co-firing pathway, the BSER also includes a third component—co-firing 96 percent (by volume) low-GHG hydrogen. These sources would be

required to meet a third phase standard of performance equivalent to that for the affected sources applying CCS as a second component of the BSER. These sources would be required to meet that equivalent standard of performance reflecting the application of highly efficient generation and co-firing high levels of low-GHG hydrogen. Table 1 summarizes the proposed BSER for combustion turbine EGUs that commence construction or reconstruction after publication of this proposal. The EPA is also proposing standards of performance based on those BSER for each subcategory, as discussed in section VII.G.

TABLE 1—PROPOSED BSER FOR COMBUSTION TURBINE EGUS

Subcategory	Fuel	1st Component BSER	2nd Component BSER	3rd Component BSER
Low Load * .....	All Fuels .....	Lower emitting fuels .....	N/A .....	N/A
Intermediate Load .....	All Fuels .....	Highly Efficient Generation	30 percent (by volume) Low-GHG Hydrogen Co-firing by 2032.	N/A
Base Load .....	Sources adopting the CCS pathway.	Highly Efficient Generation	90 percent CCS by 2035 ..	N/A
	Sources adopting the low-GHG hydrogen co-firing pathway.	.....	30 percent (by volume) Low-GHG Hydrogen Co-firing by 2032.	96 percent (by volume) Low-GHG Hydrogen Co-firing by 2038

\* The low load subcategory has a single-component BSER consisting of fuels that emit lower GHG emissions.

1. BSER for Low Load Subcategory

This section describes the proposed BSER for the low load (*i.e.*, peaking) subcategory, which is the use of lower emitting fuels. For this proposed rule, the Agency proposes to determine that the use of lower emitting fuels, which the EPA determined to be the BSER for the non-base load subcategory in the 2015 NSPS, is the BSER for this low load subcategory in the standards of performance proposed in this action. As explained above, the EPA is proposing to narrow the definition of the low load subcategory by lowering the electric sales threshold (as compared to the electric sales threshold for non-base load combustion turbines in the 2015 NSPS), so that turbines with higher electric sales would be placed in the proposed intermediate load subcategory and therefore be subject to a more stringent standards based on the more stringent component of the BSER. Unlike the proposals for intermediate and base load combustion turbines, the proposed low load subcategory includes only a single-phase BSER component.

a. Background: The Non-Base Load Subcategory in the 2015 NSPS

The 2015 NSPS defined non-base load natural gas-fired EGUs as stationary

combustion turbines that (1) Burn more than 90 percent natural gas and (2) have net electric sales equal to or less than their design efficiency (not to exceed 50 percent) multiplied by their potential electric output (80 FR 64601; October 23, 2015). These are calculated on 12-operating-month and 3-year rolling average bases. The EPA also determined in the 2015 NSPS that the BSER for newly constructed and reconstructed non-base load natural gas-fired stationary combustion turbines is the use of lower emitting fuels. *Id.* at 64515. These lower emitting fuels are primarily natural gas with a small allowance for distillate oil (*i.e.*, Nos. 1 and 2 fuel oils), which have been widely used in stationary combustion turbine EGUs for decades.

The EPA also determined in the 2015 NSPS that the standard of performance for sources in this subcategory is a heat input-based standard of 120 lb CO<sub>2</sub>/MMBtu. The EPA established this clean-fuels BSER for this subcategory because of the variability in the operation in non-base load combustion turbines and the challenges involved in determining a uniform output-based standard that all new and reconstructed non-base load units could achieve.

Specifically, in the 2015 NSPS, the EPA recognized that a BSER for the non-

base load subcategory based on the use of lower emitting fuels results in limited GHG reductions, but further recognized that an output-based standard of performance could not reasonably be applied to the subcategory. The EPA explained that a combustion turbine operating at a low capacity factor could operate with multiple starts and stops, and that its emission rate would be highly dependent on how it was operated and not its design efficiency. Moreover, combustion turbines with low annual capacity factors typically operated differently from each other, and therefore had different emission rates. The EPA recognized that, as a result, it would not be possible to determine a standard of performance that could reasonably apply to all combustion turbines in the subcategory. For that reason, the EPA further recognized, efficient design <sup>229</sup> and operation would not qualify as the BSER; rather, the BSER should be lower

<sup>229</sup> Important characteristics for minimizing emissions from low load combustion turbines include the ability to operate efficiently while operating at part load conditions and the ability to rapidly achieve maximum efficiency to minimize periods of operation at lower efficiencies. These characteristics do not necessarily always align with higher design efficiencies that are determined under steady state full load conditions.

emitting fuels and the associated standard of performance should be based on heat input. Since the 2015 NSPS, all newly constructed simple cycle turbines have been non-base load units and thus have become subject to this standard of performance.

b. Proposed BSER

Consistent with the rationale of the 2015 NSPS, the EPA proposes that the use of fuels with an emissions rate of less than 160 lb CO<sub>2</sub>/MMBtu (*i.e.*, lower emitting fuels) meets the BSER requirements for the low load subcategory. Use of these fuels is technically feasible for combustion turbines. Natural gas comprises the majority of the heat input for simple cycle turbines and is the lowest cost fossil fuel. In the 2015 NSPS, the EPA determined that natural gas comprised 96 percent of the heat input for simple cycle turbines. See 80 FR 64616 (October 23, 2015). Therefore, a BSER based on the use of natural gas and/or distillate oil would have minimal, if any, costs to regulated entities. The use of lower emitting fuels would not have any significant adverse energy requirements or non-air quality or environmental impacts, as the EPA determined in the 2015 NSPS. *Id.* at 64616. In addition, the use of fuels meeting this criterion would result in some emission reductions by limiting the use of fuels with higher carbon content, such as residual oil, as the EPA also explained in the 2015 NSPS. *Id.* Although the use of fuels meeting this criterion would not advance technology, in light of the other reasons described here, the EPA proposes that the use of natural gas, Nos. 1 and 2 fuel oils, and other fuels<sup>230</sup> currently specified in 40 CFR part 60, subpart TTTT, qualify as the BSER for new and reconstructed combustion turbine EGUs in the low load subcategory. The EPA is also proposing to add low-GHG hydrogen to the list of fuels meeting the uniform fuels criteria in 40 CFR part 60, subpart TTTTa. The addition of low-GHG hydrogen (and fuels derived from hydrogen) to 40 CFR part 60, subpart TTTTa would simplify the recordkeeping and reporting requirements for low load combustion turbines that elect to burn low-GHG hydrogen. As described in section VII.F, a component of the BSER for certain subcategories in subpart TTTTa is based on the use of low-GHG hydrogen. An

owner/operator of a subpart TTTTa affected combustion turbine that combusts hydrogen for compliance purposes not meeting the definition of low-GHG hydrogen would be in violation of the subpart TTTTa requirements.

For the reasons discussed in the 2015 NSPS and noted above, the EPA is not proposing that efficient design and operation qualify as the BSER for the low load subcategory. The EPA is not proposing high-efficiency simple cycle or combined cycle turbine design and operation as the BSER for the low load subcategory because they are not necessarily cost reasonable and would not necessarily result in emission reductions. High efficiency combustion turbines have higher initial costs compared to lower efficiency combustion turbines. The cost of combustion turbine engines is dependent upon many factors, but the EPA estimates that the capital cost of a high-efficiency simple cycle turbine is 5 percent more than that of a comparable lower efficiency simple cycle turbine. Assuming all other costs are the same and that the high-efficiency simple cycle turbine uses 6 percent less fuel, it would not necessarily be cost reasonable to use a high-efficiency simple cycle turbine until the combustion turbine is operated at a 12-operating-month capacity factor of approximately 20 percent. At lower capacity factors, the CO<sub>2</sub> abatement costs on both a \$/ton and \$/MW basis increase rapidly.<sup>231</sup> Further, the emission rate of a low load combustion turbine is highly dependent upon the way the combustion turbine is operated. If the combustion turbine is frequently operated at part load conditions with frequent starts and stops, a combustion turbine with a high design efficiency, which is determined at full load steady state conditions, would not necessarily emit at a lower GHG rate than a combustion turbine with a lower design efficiency.

The EPA solicits comment on whether, and the extent to which, high-efficiency designs also operate more efficiently at part loads and can start more quickly and reach the desired load more rapidly than combustion turbines with less efficient design efficiencies. If high-efficiency simple cycle turbines do operate at higher part-load efficiencies and are able to reach the intended operating load more quickly, the use of highly efficient simple cycle turbines for

low load applications would result in lower GHG reductions. In addition, the EPA solicits comment on the cost premium of high-efficiency simple cycle turbines. If the use of highly efficient simple cycle turbines results in GHG reductions at reasonable cost, their use could qualify as the BSER for low load combustion turbines. The EPA is soliciting comment on whether the BSER for new low load combustion turbines should be the use of high efficiency simple cycle technology. However, since the method of operation has a substantial impact on the emissions rate, it may not be feasible for to prescribe or enforce a single numerical standard of performance for affected sources strictly based on design efficiency. Accordingly, the EPA solicits comment on whether it would be appropriate to promulgate such a requirement as a design standard pursuant to CAA section 111(h). Pursuant to such a design standard, compliance would be demonstrated (i) initially, through an emissions test and (ii) subsequently, based on the use of lower emitting fuels. The initial full load performance test for natural gas-fired low load combustion turbines the EPA is considering is 1,150 lb CO<sub>2</sub>/MWh-gross or 1,100 lb CO<sub>2</sub>/MWh-gross.<sup>232</sup> Combustion turbine manufacturers conduct testing on their products and the initial performance test is equivalent to a design efficiency of approximately 35 and 36 percent, respectively. According to Gas Turbine World 2021, approximately three-fourths of simple cycle combustion turbines have design efficiencies of 35 percent or higher and half of simple cycle combustion turbines have design efficiencies of 36 percent or higher. The EPA is soliciting comment on if the initial performance test for low load combustion turbines could be conducted by the manufacturer certifying the design GHG emissions rate or if the owner or operator should be required to conduct separate testing to verify the emissions rate. The EPA notes that even if the Agency determines that a manufacturer design efficiency-based emissions requirement is appropriate for new low load combustion turbines, owners/operators would also have the option to either comply with the intermediate load standard of performance on a continuous basis or conduct an initial performance test as an alternative to purchasing a combustion turbine that

<sup>230</sup> The BSER for multi-fuel-fired combustion turbines subject to 40 CFR part 60, subpart TTTT is also the use of fuels with an emissions rate of 160 lb CO<sub>2</sub>/MMBtu or less. The use of these fuels would demonstrate compliance with the low load subcategory.

<sup>231</sup> The cost effectiveness calculation is highly dependent upon assumptions concerning the increase in capital costs, the decrease in heat rate, and the price of natural gas.

<sup>232</sup> The initial full load compliance test would be a 3-hour performance test and the measured emissions rate would be corrected to ISO conditions.

achieves the specified design efficiency. For example, owners/operators could elect to cofire low-GHG hydrogen or install integrated renewable generation as an alternative to purchasing a combustion turbine that meets the specified design efficiency.

The EPA expects that units in the low load subcategory will be simple cycle turbines. The capital cost of a combined cycle EGU is approximately 250 percent that of a comparable sized simple cycle EGU and would not be recovered by reduced fuel costs if operated as low load units. Furthermore, low load combustion turbines start and stop so frequently that there might not be sufficient periods of continuous operation for the HRSG to begin generating steam to operate the steam turbine enough to significantly lower the emissions rate of the EGU.

The EPA is not proposing the use of CCS or hydrogen co-firing as the BSER (or as a component of the BSER) for low load combustion turbines.<sup>233</sup> As described in the section discussing the second component of BSER for the intermediate load subcategory, the EPA is not proposing that CCS is the BSER for simple cycle combustion turbines based on the Agency's assessment that CCS may not be cost-effective for such combustion turbines when operated at intermediate load. This rationale applies with even greater force for low load combustion turbines. In addition, currently available post-combustion amine-based carbon capture systems require that the exhaust from a combustion turbine be cooled prior to entering the carbon capture equipment. The most energy efficient way to do this is to use a HSRG, which is an integral component of a combined cycle turbine system but is not incorporated in a simple cycle unit. For these reasons, the Agency is not proposing that CCS qualifies as the BSER for this subcategory of sources.

The EPA is not proposing low-GHG hydrogen co-firing as the BSER for low load combustion turbines because not all new combustion turbines can necessarily co-fire higher percentages of hydrogen, there are potential infrastructure issues specific to low load combustion turbines, and at the relatively infrequent levels of utilization that characterize the low load subcategory, a low-GHG hydrogen co-firing BSER would not necessarily result in cost-effective GHG reductions for all

low load combustion turbines. As discussed later in this section, the announced hydrogen co-firing combustion turbine projects appear to be intermediate and base load combustion turbines. Manufacturers may focus initial research and development for hydrogen co-firing on combustion turbines that operate at higher capacity factors and that can achieve higher levels of overall GHG reductions. The EPA is soliciting comment on whether this development could limit the availability of low load combustion turbines that are capable of burning higher percentages of hydrogen. The EPA is also soliciting comment on technologies to reduce potential costs and technical challenges for the transport and storage of hydrogen for owners/operators of low load combustion turbines. In particular, the EPA is soliciting comment on approaches that could be used for owners/operators of low load combustion turbines located in high demand centers (*e.g.*, dense urban areas). To the extent these factors are not significant, the EPA is soliciting comment, with the intention of determining whether it would be appropriate to consider such a requirement in a future rulemaking, on whether the EPA should add a second component of the BSER for low load combustion turbines, based on hydrogen co-firing that would begin in 2032. The hydrogen co-firing requirement would be a separate requirement in addition to the proposed lower emitting fuels requirement. Based on simple cycle turbines that recently commenced operation, the average 12-operating-month capacity factor of low load combustion turbines would be less than 8 percent. If hydrogen co-firing were to qualify as the BSER, based on historical trends for construction of new simple cycle turbines and the operation of those turbines in 2021, a BSER based on 30 percent low-GHG hydrogen co-firing by volume for low load combustion turbines would result in annual reductions of 49,000 tons of CO<sub>2</sub>.

## 2. BSER for Base Load and Intermediate Load Subcategories—First Component

This section describes the first component of the EPA's proposed BSER for newly constructed and reconstructed combustion turbines in the base load and intermediate load subcategories. For combustion turbines in the intermediate load subcategory, this first component of the BSER is the use of high-efficiency simple cycle turbine technology in combination with the best operating and maintenance practices. For combustion turbines in the base load subcategory,

the first component of the BSER is the use of high-efficiency combined cycle technology in combination with the best operating and maintenance practices.

### a. Lower Emitting Fuels

The EPA is not proposing lower emitting fuels as the BSER for intermediate load or base load EGUs because, as described earlier in this section, it would achieve few GHG emission reductions compared to highly efficient generation.

### b. Highly Efficient Generation

The use of highly efficient generating technology in combination with the best operating and maintenance practices has been demonstrated by multiple facilities for decades. Notably, over time, as technologies have improved, what is considered highly efficient has changed as well. Highly efficient generating technology is available and offered by multiple vendors for both simple cycle and combined cycle combustion turbines. Both types of turbines can also employ best operating and maintenance practices, which include routine operating and maintenance practices that minimize fuel use.

For simple cycle combustion turbines, manufacturers continue to improve the efficiency by increasing firing temperature, increasing pressure ratios, using intercooling on the air compressor, and adopting other measures. These improved designs allow for improved operating efficiencies and reduced emission rates. Design efficiencies of simple cycle combustion turbines range from 33 to 40 percent. Best operating practices for simple cycle combustion turbines include proper maintenance of the combustion turbine flow path components and the use of inlet air cooling to reduce efficiency losses during periods of high ambient temperatures.

For combined cycle turbines, high-efficiency technology uses a highly efficient combustion turbine engine matched with a high-efficiency HRSG. The most efficient combined cycle EGUs use HRSG with three different steam pressures and incorporate a steam reheat cycle to maximize the efficiency of the Rankine cycle. It is not necessarily practical for owner/operators of combined cycle facilities using a turbine engine with an exhaust temperature below 593 °C or a steam turbine engine smaller than 60 MW to incorporate a steam reheat cycle. Smaller combustion turbine engines, less than those rated at approximately 2,000 MMBtu/h, tend to have lower

<sup>233</sup> The EPA will not finalize the use of CCS or hydrogen co-firing as the BSER (or as a component of the BSER) for low load combustion turbines unless it first issues a subsequent notice of proposed rulemaking further evaluating such measures for that subcategory.

exhaust temperatures and are paired with steam turbines of 60 MW or less. These smaller combined cycle units are limited to using triple-pressure steam without a reheat cycle. This reduces the overall efficiency of the combined cycle unit by approximately 2 percent.

Therefore, the EPA is proposing less stringent standards of performance for smaller combined cycle EGUs with base load ratings of less than 2,000 MMBtu/h relative to those for larger combined cycle combustion turbine EGUs. High efficiency also includes, but is not limited to, the use of the most efficient steam turbine and minimizing energy losses using insulation and blowdown heat recovery. Best operating and maintenance practices include, but are not limited to, minimizing steam leaks, minimizing air infiltration, and cleaning and maintaining heat transfer surfaces.

New technologies are available for new simple and combined cycle EGUs that could reduce emissions beyond what is currently being achieved by the best performing EGUs. For example, pressure gain combustion in the turbine engine would increase the efficiency of both simple and combined cycle EGUs. For combined cycle EGUs, the HRSG could be designed to utilize supercritical steam conditions or to utilize supercritical CO<sub>2</sub> as the working fluid instead of water; useful thermal output could be recovered from a compressor intercooler and boiler blowdown; and fuel preheating could be implemented. For additional information on these and other technologies that could reduce the emissions rate of new combustion turbines, see the *Efficient Generation at Combustion Turbine Electric Generating Units* TSD, which is available in the rulemaking docket. The EPA is soliciting comment on whether these technologies should be incorporated into a standard of performance based on an efficient generation BSER. To the extent commenters support the inclusion of emission reductions from the use of these technologies, the EPA requests that cost information and potential emission reductions be included.

#### i. Adequately Demonstrated

The EPA proposes that highly efficient simple cycle and combined cycle designs are adequately demonstrated because highly efficient simple cycle EGUs and highly efficient combined cycle EGUs have been demonstrated by multiple facilities for decades, the efficiency improvements of the most efficient designs are incremental in nature and do not change in any significant way how the

combustion turbine is operated or maintained, and the levels of efficiency that the EPA is proposing have been achieved by many recently constructed turbines. Approximately 14 percent of simple cycle and combined cycle combustion turbines that have commenced operation since 2015 have maintained emission rates below the proposed standards, demonstrating that the efficient generation technology described in this BSER is commercially available and that the standards of performance the EPA is proposing are achievable.

#### ii. Costs

In general, advanced generation technologies enhance operational efficiency compared to lower efficiency designs. Such technologies present little incremental capital cost compared to other types of technologies that may be considered for new and reconstructed sources. In addition, more efficient designs have lower fuel costs that offset at least a portion of the increase in capital costs.

For the intermediate load subcategory, the EPA proposes that the costs of high-efficiency simple cycle combustion turbines are reasonable. As described in the subcategory section, the cost of combustion turbine engines is dependent upon many factors, but the EPA estimates that the capital cost of a high-efficiency simple cycle turbine is 5 percent more than a comparable lower efficiency simple cycle turbine. Assuming all other costs are the same and that the high-efficiency simple cycle turbine uses 6 percent less fuel, high-efficiency simple cycle combustion turbines have a lower LCOE compared to standard efficiency simple cycle combustion turbines at a 12-operating-month capacity factor of approximately 20 percent. Therefore, a BSER based on the use of high-efficiency simple cycle combustion turbines for intermediate load combustion turbines would have minimal, if any, overall compliance costs since the capital costs would be recovered through reduced fuel costs. The EPA considered but is not proposing combined cycle unit design for combustion turbines in the intermediate subcategory because the capital cost of a combined cycle EGU is approximately 250 percent that of a comparable-sized simple cycle EGU and because the amount of GHG reductions that could be achieved by operating combined cycle EGUs as intermediate load EGUs is unclear. Furthermore, intermediate load combustion turbines start and stop so frequently that there might not be sufficient periods of continuous operation where the HRSG

would have sufficient time to generate steam to operate the steam turbine enough to significantly lower the emissions rate of the EGU.

For the base load subcategory, the EPA proposes that the cost of high-efficiency combined cycle EGUs is reasonable. While the capital costs of a higher efficiency combined cycle EGUs are 1.9 percent higher than standard efficiency combined cycle EGUs, fuel use is 2.6 percent lower.<sup>234</sup> The reduction in fuel costs fully offset the capital costs at capacity factors of 40 percent or greater over the expected 30-year life of the facility. Therefore, a BSER based on the use of high-efficiency combined cycle combustion turbines for base load combustion turbines would have minimal, if any, overall compliance costs since the capital costs would be recovered through reduced fuel costs over the expected 30-year life of the facility. For additional information on costs, see the *Efficient Generation at Combustion Turbine Electric Generating Units* TSD, which is available in the rulemaking docket.

#### iii. Non-Air Quality Health and Environmental Impact and Energy Requirements

Use of highly efficient simple cycle and combined cycle generation reduces all non-air quality health and environmental impacts and energy requirements as compared to use of less efficient generation. Even when operating at the same input-based emissions rate, the more efficient a unit is, the less fuel is required to produce the same level of output; and, as a result, emissions are reduced for all pollutants. The use of highly efficient simple cycle turbines, compared to the use of less efficient simple cycle turbines, reduces all pollutants. Similarly, the use of high-efficiency combined combustion turbines, compared to the use of less efficient combined cycle turbines, reduces all pollutants. By the same token, because improved efficiency allows for more electricity generation from the same amount of fuel, it will not have any adverse effects on energy requirements.

Designating highly efficient generation as part of the BSER for new and reconstructed base load and intermediate load combustion turbines will not have significant impacts on the

<sup>234</sup> Cost And Performance Baseline for Fossil Energy Plants Volume 1: Bituminous Coal and Natural Gas to Electricity, Rev. 4A (October 2022), [https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity\\_101422.pdf](https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity_101422.pdf).

nationwide supply of electricity, electricity prices, or the structure of the electric power sector. On a nationwide basis, the additional costs of the use of highly efficient generation will be small because the technology does not add significant costs and at least some of those costs are offset by reduced fuel costs. In addition, at least some of these new combustion turbines would be expected to incorporate highly efficient generation technology in any event.

#### iv. Extent of Reductions in CO<sub>2</sub> Emissions

The EPA estimated the potential emission reductions associated with a standard that reflects the application of highly efficient generation as BSER for the intermediate load and base load subcategories. As discussed in section VII.G, the EPA determined that the standards of performance reflecting this BSER are 1,150 lb CO<sub>2</sub>/MWh-gross for intermediate load and 770 lb CO<sub>2</sub>/MWh-gross for large base load combustion turbines.

Between 2015 and 2021, an average of 16 simple cycle turbines commenced operation per year. Of these, the EPA estimates that an average of six operated at greater than a 20 percent capacity factor on a 12-operating-month basis and thus would be considered intermediate load combustion turbines. For recent intermediate load simple cycle turbines, the EPA determined that the weighted average maximum 12-operating-month emissions rate<sup>235</sup> is 1,250 lb CO<sub>2</sub>/MWh-gross. This is 8.3 percent higher than the proposed intermediate load standard of 1,150 lb CO<sub>2</sub>/MWh-gross. Therefore, the EPA estimates that the proposed standard of performance based on the application of the proposed BSER for intermediate load combustion turbines would reduce the GHG emissions from those sources by 8.3 percent annually. Based on historical trends for construction of new simple cycle turbines and the operation of those turbines in 2021, the proposed standards for intermediate load combustion turbines would result in annual reductions of 44,000 tons of CO<sub>2</sub> as well as 13 tons of NO<sub>x</sub>. For the base load subcategory, the weighted average maximum 12-operating-month emissions rate of large (base load ratings of 2,000 MMBtu/h or more) NGCC combustion turbines that commenced operation since 2015 has been 810 lb CO<sub>2</sub>/MWh-gross. This is 5 percent

higher than the proposed standard of 770 lb CO<sub>2</sub>/MWh-gross for large base load combustion turbines. The only small, combined cycle combustion turbine (base load rating of 593 MMBtu/h) reporting emissions that commenced operation since 2015 has had a reported annual emissions rate of 870 lb CO<sub>2</sub>/MWh-gross, which is slightly lower than the proposed standard of 875 lb CO<sub>2</sub>/MWh-gross for a small base load combustion turbine with a base load rating of 593 MMBtu/h. Therefore, the EPA estimates that the proposed standards would require owners/operators to construct and maintain highly efficient combined cycle combustion turbines that would result in reductions in emissions of approximately 5 percent for new large stationary combustion EGUs and maintaining best performing emission rates for new small stationary combustion EGUs. Using historical trends for new combined cycle turbines and the operation of those combustion turbines in 2021, the proposed standards for base load combustion turbines would result in annual reductions of 940,000 tons of CO<sub>2</sub> as well as 75 tons of NO<sub>x</sub>.

#### v. Promotion of the Development and Implementation of Technology

The EPA also considered the potential impact of selecting highly efficient generation technology as the BSER in promoting the development and implementation of improved control technology. This technology is more efficient than the average new generation technology and determining it to be a component of the BSER will advance its penetration throughout the industry. Accordingly, consideration of this factor supports the EPA's proposal to determine this technology to be the first component of the BSER.

#### c. Low-GHG Hydrogen and CCS

For reasons discussed in sections VII.F.3.b.v (CCS) and VII.F.3.c.vi (low-GHG hydrogen), the EPA is not proposing either CCS or co-firing low-GHG hydrogen as the first component of the BSER for intermediate load or base load EGUs.

#### d. Proposed BSER

The EPA proposes that highly efficient generating technology in combination with the best operating and maintenance practices is the first component BSER for base load and intermediate load combustion turbines and the phase 1 standards of performance are based on the application of that technology. Specifically, the use of highly efficient

simple cycle technology in combination with the best operating and maintenance practices is the first component of the BSER for intermediate load combustion turbines. The use of highly efficient combined cycle technology in combination with best operating and maintenance practices is the first component of the BSER for base load combustion turbines.

Highly efficient generation qualifies as a component of the BSER because it is adequately demonstrated, it can be implemented at reasonable cost, it achieves emission reductions, and it does not have significant adverse non-air quality health or environmental impacts or significant adverse energy requirements. The fact that it promotes greater use of advanced technology provides additional support; however, the EPA would consider highly efficient generation to be a component of the BSER for base load and intermediate load combustion turbines even without taking this factor into account.

#### 3. BSER for Base Load and Intermediate Load Subcategories—Second and Third Components

This section describes the proposed second (and in some cases third) component of the BSER for base load and intermediate load combustion turbines, which would be reflected in the second phase (and in some cases third phase) standards of performance. The proposed second component of the BSER for base load combustion turbines that are adopting the CCS pathway is the use of 90 percent CCS; and the corresponding standard of performance would apply beginning in 2035. The second component of the BSER for base load combustion turbines that are adopting the low-GHG hydrogen co-firing pathway and for intermediate load combustion turbines is co-firing 30 percent (by volume) low-GHG hydrogen and the corresponding standard of performance would apply beginning in 2032. The third component of the BSER would apply only to base load combustion turbines that are subject to a second phase standard that is based on co-firing 30 percent (by volume) low-GHG hydrogen. For those sources, the third component of the BSER is co-firing 96 percent (by volume) low-GHG hydrogen and the corresponding standard of performance would apply beginning in 2038. The EPA is also soliciting comment on whether intermediate load combustion turbines should be subject to a more stringent third phase standard based on 96 percent low-GHG hydrogen co-firing by 2038. A BSER based on 96 percent co-firing would result in a standard of

<sup>235</sup> The EPA is defining the achievable emissions rate as either the maximum 12-operating-month or the 99th percent confidence 12-operating-month emissions rate. The weighted average maximum emissions rate is the heat input weighted overall average of the maximum emission rates.



performance of 140 lb CO<sub>2</sub>/MWh-gross for a natural gas-fired intermediate load combustion turbine.

a. Authority To Promulgate a Multi-Part BSER and Standard of Performance

The EPA's proposed approach of promulgating standards of performance that apply in multiple phases, based on determining the BSER to be a set of controls with multiple components, is consistent with CAA section 111(b). That provision authorizes the EPA to promulgate "standards of performance," CAA section 111(b)(1)(B), defined, in the singular, as "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the [BSER]." CAA section 111(a)(1). CAA section 111(b)(1)(B) further provides, "[s]tandards of performance . . . shall become effective upon promulgation." In this rulemaking, the EPA is proposing to determine that the BSER is a set of controls that, depending on the subcategory, include either highly efficient generation plus use of CCS or highly efficient generation plus co-firing low-GHG hydrogen. The EPA is further proposing that affected sources can apply the first component of the BSER—highly efficient generation—by the effective date of the final rule and can apply both the first and second components of the BSER—highly efficient generation in combination with co-firing 30 percent (by volume) low-GHG hydrogen and highly efficient generation in combination with 90 percent CCS—in 2032 and 2035, respectively. The EPA is also proposing that certain sources can apply the third component of the BSER—co-firing 96 percent (by volume) low-GHG hydrogen—by 2038.

Accordingly, the EPA is proposing standards of performance that reflect the application of this multi-component BSER and that take the form of standards of performance that affected sources must comply with in either two or three phases. Affected sources must comply with the first phase standards that are based on the application of the first component of the BSER upon initial startup of the facility. The second phase standards are based on the application of both the first and second components of the BSER by 2032 (for those sources utilizing co-firing low-GHG hydrogen) and by 2035 (for those sources utilizing CCS). The third phase standards are only applicable to those sources that are subject to a second phase standard of performance based on the highly efficient generation in combination with co-firing 30 percent

(by volume) low-GHG hydrogen. The third phase standards for those sources are based on the application of the first component of the BSER and on the third component, which is co-firing 96 percent (by volume) low-GHG hydrogen by 2038. In this manner, this multi-phase standard of performance "become[s] effective upon promulgation." CAA section 111(b)(1)(B). That is, upon promulgation, affected sources become subject to a standard of performance that limits their emissions immediately, which is the first phase of the standard of performance, and they also become subject to more stringent standards beginning in 2032 or later, which are the second and in some cases third phase of the standard of performance.

D.C. Circuit caselaw supports the proposition that CAA section 111 authorizes the EPA to determine that controls qualify as the BSER—including meeting the "adequately demonstrated" criterion—even if the controls require some amount of "lead time," which the court has defined as "the time in which the technology will have to be available."<sup>236</sup> The caselaw's interpretation of "adequately demonstrated" to accommodate lead time accords with common sense and the practical experience of certain types of controls, discussed below. Consistent with this caselaw, the phased implementation of the standards of performance in this rule ensures that facilities have sufficient lead time for planning and implementation of the use of CCS or low GHG-hydrogen-based controls necessary to comply with the second phase of the standards, and thereby ensures that the standards are achievable. Indeed, interpreting CAA section 111 to preclude phased implementation of standards of performance would be tantamount to interpreting the provision to preclude standards based on lead time, which would be contrary to the D.C. Circuit caselaw and common sense.

The EPA has promulgated several prior rulemakings under CAA section 111(b) that have similarly provided the regulated sector with lead time to accommodate the availability of technology, which also serve as precedent for the two-phase implementation approach proposed in this rule. See 81 FR 59332 (August 29, 2016) (establishing standards for municipal solid waste landfills with 30-month compliance timeframe for installation of control device, with interim milestones); 80 FR 13672, 13676

(March 16, 2015) (establishing stepped compliance approach to wood heaters standards to permit manufacturers lead time to develop, test, field evaluate and certify current technologies to meet Step 2 emission limits); 78 FR 58416, 58420 (September 23, 2013) (establishing multi-phased compliance deadlines for revised storage vessel standards to permit sufficient time for production of necessary supply of control devices and for trained personnel to perform installation); 77 FR 56422, 56450 (September 12, 2012) (establishing standards for petroleum refineries, with 3-year compliance timeframe for installation of control devices); 71 FR 39154, 39158 (July 11, 2006) (establishing standards for stationary compression ignition internal combustion engines, with 2 to 3-year compliance timeframe and up to 6 years for certain emergency fire pump engines); 70 FR 28606, 28617 (March 18, 2005) (establishing two-phase caps for mercury standards of performance from new and existing coal-fired electric utility steam generating units based on timeframe when additional control technologies were projected to be adequately demonstrated).<sup>237</sup> Cf. 80 FR 64662, 64743 (October 23, 2015) (establishing interim compliance period to phase in final power sector GHG standards to allow time for planning and investment necessary for implementation activities).<sup>238</sup> In each action, the standards and compliance timelines were effective upon the final rule, with affected facilities required to comply consistent with the phased compliance deadline specified in each action.

It should be noted that the multi-phased implementation of the standards of performance that the EPA is proposing in this rule, like the delayed or multi-phased standards in prior rules just described, is distinct from the promulgation of revised standards of performance under the 8-year review provision of CAA section 111(b)(1)(B). As discussed in section VII.F, the EPA has determined that the proposed BSER—highly efficient generation and use of CCS or highly efficient generation and co-firing low-GHG hydrogen—meet all of the statutory criteria and are adequately demonstrated for the compliance timeframes being proposed. Thus, the second and third phases of the standard of performance, if finalized, would apply to affected facilities that commence construction after the date of

<sup>237</sup> Cf. *New Jersey v. EPA*, 517 F.3d 574, 583–584 (D.C. Cir. 2008) (vacating rule on other grounds).

<sup>238</sup> Cf. *West Virginia v. EPA*, 142 S. Ct. 2587 (2022) (vacating rule on other grounds).

<sup>236</sup> *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (citations omitted).



this proposal. In contrast, when the EPA later reviews and (if appropriate) revises a standard of performance under the 8-year review provision, then affected sources that commence construction after the date of that proposal of the revised standard of performance would be subject to that standard, but not sources that commenced construction earlier.

Similarly, the multi-phased implementation of the standard of performance that the EPA is proposing in this rule is also distinct from the promulgation of emission guidelines for existing sources under CAA section 111(d). Emission guidelines only apply to existing sources, which are defined in CAA section 111(a)(6) as “any stationary source other than a new source.”

Because new sources are defined relative to the proposal of standards pursuant to CAA section 111(b)(1)(B), standards of performance adopted pursuant to emission guidelines will only apply to sources constructed before the date of these proposed standards of performance for new sources.

#### b. BSER for Base Load Subcategory of Combustion Turbines Adopting the CCS Pathway—Second Component

This section describes the second component of the BSER for the base load subcategory of combustion turbines that are adopting the CCS pathway. This subcategory is expected to include highly efficient combined cycle combustion turbines that primarily combust fossil fuels, and therefore have higher levels of CO<sub>2</sub> in the exhaust.

The EPA is proposing the use of CCS as the second component of the BSER for these combustion turbines. A detailed discussion of CCS follows. It should be noted that the EPA is also proposing use of CCS as the BSER for existing long-term coal-fired steam generating units (*i.e.*, coal-fired utility boilers), as discussed in section X.D of this preamble, as well as for large and frequently operated existing stationary combustion turbines. Many aspects of CCS are common to new combined cycle combustion turbines, existing long-term steam generating units, and existing stationary combustion turbines, and the following discussion details those common aspects and considerations.

#### i. Lower Emitting Fuels

The EPA is not proposing lower emitting fuels as the second component of the BSER for base load combustion turbines because it would achieve few emission reductions, compared to highly efficient generation in combination with the use of CCS.

#### ii. Highly Efficient Generation

For the reasons described above, the EPA is proposing that highly efficient generation technology in combination with best operating and maintenance practices continues to be a component of the BSER that is reflected in the second phase of the standards of performance for base load combustion turbine EGUs that are adopting the CCS pathway. Highly efficient generation reduces fuel use and the amount of CO<sub>2</sub> that must be captured by a CCS system. Since less flue gas needs to be treated, physically smaller carbon capture equipment may be used—potentially reducing capital, fixed, and operating costs.

#### iii. CCS

In this section of the preamble, the EPA provides a description of the components of CCS and evaluates it against the criteria to qualify as the BSER. CCS has three major components: CO<sub>2</sub> capture, transportation, and sequestration/storage. Post-combustion capture processes remove CO<sub>2</sub> from the exhaust gas of a combustion system, such as a combustion turbine or a utility boiler. This technology is referred to as “post-combustion capture” because CO<sub>2</sub> is a product of the combustion of the primary fuel and the capture takes place after the combustion of that fuel. The exhaust gases from most combustion processes are at atmospheric pressure and are moved through the flue gas duct system by fans. The concentration of CO<sub>2</sub> in most fossil fuel combustion flue gas streams is somewhat dilute. Most post-combustion capture systems utilize liquid solvents—most commonly amine-based solvents—that separate the CO<sub>2</sub> from the flue gas in CO<sub>2</sub> scrubber systems using chemical absorption (or chemisorption). In a chemisorption-based separation process, the flue gas is processed through the CO<sub>2</sub> scrubber and the CO<sub>2</sub> is absorbed by the liquid solvent. The CO<sub>2</sub>-rich solvent is then regenerated by heating the solvent to release the captured CO<sub>2</sub>.

Another technology, oxy-combustion, uses a purified oxygen stream from an air separation unit (often diluted with recycled CO<sub>2</sub> to control the flame temperature) to combust the fuel and produce a higher concentration of CO<sub>2</sub> in the flue gas, as opposed to combustion with oxygen in air which contains 80 percent nitrogen. The high purity CO<sub>2</sub> is then compressed and transported, generally through pipelines, to a site for geologic sequestration (*i.e.*, the long-term containment of CO<sub>2</sub> in subsurface geologic formations). These

sequestration sites are widely available across the nation, and the EPA has developed a comprehensive regulatory structure to oversee geological sequestration projects and assure their safety and effectiveness. See 80 FR 64549 (October 23, 2015).

#### (A) Adequately Demonstrated

For new base load combustion turbines, the EPA proposes that CCS with a 90 percent capture rate, beginning in 2035, meets the BSER criteria. This amount of CCS is feasible and has been adequately demonstrated. The use of CCS at this level can be implemented at reasonable cost because it allows affected sources to maximize the benefits of the IRC section 45Q tax credit, and sources can maintain it over time by capturing a higher percentage at certain times in order to offset a lower capture rate at other times due to, for example, the need to undertake maintenance or due to unplanned capture system outages. Higher capture rates may be possible—the 2022 NETL Baseline report evaluated capture rates at 90 and 95 percent with marginal differences in cost. The Agency is soliciting comment on the range of the capture rate of CO<sub>2</sub> at the stack from 90 to 95 percent or greater. The EPA also notes that the operating availability (the fraction of time CCS equipment is operational relative to the operation of the combustion turbine) may be less than 100 percent and is therefore soliciting comment on a range in emission reduction from 75 to 90 percent, as further discussed in section VII.G.2 of this preamble.

The EPA previously determined “partial CCS” to be a component of the BSER (in combination with the use of a highly efficient supercritical utility boiler) for new coal-fired steam generating units as part of the 2015 NSPS (80 FR 64538; October 23, 2015).<sup>239</sup> As described in that action, reiterated in this section of the preamble, and detailed further in accompanying TSDs available in the docket for this rulemaking, numerous projects demonstrate the feasibility and effectiveness of CCS technology.

In the 2015 NSPS, the EPA considered coal-fired industrial projects that had installed at least some components of CCS technology. In doing so, the EPA recognized that some of those projects had received assistance in the form of grants, loan guarantees, and Federal tax credits for investment in “clean coal technology,” under provisions of the

<sup>239</sup>In the present action, the EPA is not reopening any aspect of the CCS determinations in the 2015 NSPS.

Energy Policy Act of 2005 (“EPAAct05”). See 80 FR 64541–42 (October 23, 2015). (The EPA refers to projects that received assistance under that legislation as “EPAAct05-assisted projects.”) The EPA further recognized that the EPAAct05 included provisions that constrained how the EPA could rely on EPAAct05-assisted projects in determining whether technology is adequately demonstrated for the purposes of CAA section 111.<sup>240</sup> The EPA went on to provide a legal interpretation of those constraints. Under that legal interpretation, “these provisions [in the EPAAct05] . . . preclude the EPA from relying solely on the experience of facilities that received [EPAAct05] assistance, but [do] not . . . preclude the EPA from relying on the experience of such facilities in conjunction with other information.”<sup>241</sup> Id. at 64541–42. In the present action, the EPA is applying the same legal interpretation and is not reopening it for comment.

#### (1) CO<sub>2</sub> Capture Technology

The EPA is proposing that the CO<sub>2</sub> capture component of CCS has been adequately demonstrated and is technically feasible based on the demonstration of the technology at existing coal-fired steam generating units and industrial sources in addition to combustion turbines. While the EPA would propose that the CO<sub>2</sub> capture component of CCS is adequately demonstrated on those bases alone, this determination is further corroborated by EPAAct05-assisted projects.

<sup>240</sup> The relevant EPAAct05 provisions include the following: Section 402(i) of the EPAAct05, codified at 42 U.S.C. 15962(a), provides as follows:

“No technology, or level of emission reduction, solely by reason of the use of the technology, or the achievement of the emission reduction, by 1 or more facilities receiving assistance under this Act, shall be considered to be adequately demonstrated [ ] for purposes of section 111 of the Clean Air Act . . . .”

IRC section 48A(g), as added by EPAAct05 1307(b), provides as follows:

“No use of technology (or level of emission reduction solely by reason of the use of the technology), and no achievement of any emission reduction by the demonstration of any technology or performance level, by or at one or more facilities with respect to which a credit is allowed under this section, shall be considered to indicate that the technology or performance level is adequately demonstrated [ ] for purposes of section 111 of the Clean Air Act . . . .”

Section 421(a) states:

“No technology, or level of emission reduction, shall be treated as adequately demonstrated for purpose [sic] of section 7411 of this title, . . . solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 13572(a)(1) of this title.”

<sup>241</sup> In the 2015 NSPS, the EPA adopted several other legal interpretations of these EPAAct05 provisions as well, which it is not reopening in this rule. See 80 FR 64541 (October 23, 2015).

Various technologies may be used to capture CO<sub>2</sub>, the details of which are described in the *GHG Mitigation Measures for Steam Generating Units TSD*, which is available in the rulemaking docket.<sup>242</sup> For post-combustion capture, these technologies include solvent-based methods (e.g., amines, chilled ammonia), solid sorbent-based methods, membrane filtration, pressure-swing adsorption, and cryogenic methods.<sup>243</sup> Lastly, as noted above, oxy-combustion uses a purified oxygen stream from an air separation unit (often diluted with recycled CO<sub>2</sub> to control the flame temperature) to combust the fuel and produce a higher concentration of CO<sub>2</sub> in the flue gas, as opposed to combustion with oxygen in air which contains 80 percent nitrogen. The CO<sub>2</sub> can then be separated by the aforementioned CO<sub>2</sub> capture methods. Of the available capture technologies, solvent-based processes have been the most widely demonstrated at commercial scale for post-combustion capture and are applicable to use with either combustion turbines or steam generating units.

Solvent-based capture processes usually use an amine (e.g., monoethanolamine, MEA). Carbon capture occurs by reactive absorption of the CO<sub>2</sub> from the flue gas into the amine solution in an absorption column. The amine reacts with the CO<sub>2</sub> but will also react with potential contaminants in the flue gas, including SO<sub>2</sub>. After absorption, the CO<sub>2</sub>-rich amine solution passes to the solvent regeneration column, while the treated gas passes through a water and/or acid wash column to limit emission of amines or other byproducts. In the solvent regeneration column, the solution is heated (using steam) to release the absorbed CO<sub>2</sub>. The released CO<sub>2</sub> is then compressed and transported offsite, usually by pipeline. The amine solution from the regenerating column is cooled and sent back to the absorption column, and any spent solvent is replenished with new solvent.

<sup>242</sup> Technologies to capture CO<sub>2</sub> are also discussed in the *GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines TSD*.

<sup>243</sup> For pre-combustion capture (as is applicable to an IGCC unit), syngas produced by gasification passes through a water-gas shift catalyst to produce a gas stream with a higher concentration of hydrogen and CO<sub>2</sub>. The higher CO<sub>2</sub> concentration relative to conventional combustion flue gas reduces the demands (power, heating, and cooling) of the subsequent CO<sub>2</sub> capture process (e.g., solid sorbent-based or solvent-based capture), the treated hydrogen can then be combusted in the unit.

(2) Capture Demonstrations at Coal-Fired Steam Generating Units and Industrial Processes

The function, design, and operation of post-combustion CO<sub>2</sub> capture equipment is similar, although not identical, for both steam generating units and combustion turbines. As a result, application of CO<sub>2</sub> capture at existing coal-fired steam generating units helps demonstrate the adequacy of the CO<sub>2</sub> capture component of CCS.

SaskPower’s Boundary Dam Unit 3, a 110 MW lignite-fired unit in Saskatchewan, Canada, has demonstrated CO<sub>2</sub> capture rates of 90 percent using an amine-based post-combustion capture system retrofitted to the existing steam generating unit. The capture plant, which began operation in 2014, was the first full-scale CO<sub>2</sub> capture system retrofit on an existing coal-fired power plant. It uses the amine-based Shell CANSOLV process, with integrated heat and power from the steam generating unit.<sup>244</sup> While successfully demonstrating the commercial-scale feasibility of 90 percent capture rates, the plant has also provided valuable lessons learned for the next generation of capture plants. A feasibility study for SaskPower’s Shand Power Station indicated achievable capture rates of 97 percent, even at lower loads.<sup>245</sup>

For all industrial processes, operational availability (the percent of time a unit operates relative to its planned operation) is usually less than 100 percent due to unplanned maintenance and other factors. As a first-of-a-kind commercial-scale project, Boundary Dam Unit 3 experienced some additional challenges with availability during its initial years of operation, due to the fouling of heat exchangers and issues with its CO<sub>2</sub> compressor.<sup>246</sup> However, identifying and correcting those problems has improved the operational availability of the capture system. The facility has reported greater than 90 percent capture system

<sup>244</sup> Giannaris, S., et al. Proceedings of the 15th International Conference on Greenhouse Gas Control Technologies (March 15–18, 2021). *SaskPower’s Boundary Dam Unit 3 Carbon Capture Facility—The Journey to Achieving Reliability*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3820191](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3820191).

<sup>245</sup> International CCS Knowledge Centre. The Shand CCS Feasibility Study Public Report. [https://ccsknowledge.com/pub/Publications/Shand\\_CCS\\_Feasibility\\_Study\\_Public\\_Report\\_Nov2018\\_2021-05-12\).pdf](https://ccsknowledge.com/pub/Publications/Shand_CCS_Feasibility_Study_Public_Report_Nov2018_2021-05-12).pdf).

<sup>246</sup> S&P Global Market Intelligence (January 6, 2022). *Only still-operating carbon capture project battled technical issues in 2021*. <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/only-still-operating-carbon-capture-project-battled-technical-issues-in-2021-68302671>.

availability in the second and third quarters of 2022.<sup>247</sup> Currently, newly constructed and retrofit CO<sub>2</sub> capture systems are anticipated to have operational availability of around 90 percent, on the same order of that is expected at coal-fired steam generating units. The EPA is soliciting comment on information relevant to the expected operational availability of new and retrofit CO<sub>2</sub> capture systems.

Several other projects have successfully demonstrated the capture component of CCS at electricity generating plants and other industrial facilities, some of which were previously noted in the discussion in the 2015 NSPS (80 FR 64548–54; October 23, 2015). Amine-based carbon capture has been demonstrated at AES's Warrior Run (Cumberland, Maryland) and Shady Point (Panama, Oklahoma) coal-fired power plants, with the captured CO<sub>2</sub> being sold for use in the food processing industry.<sup>248</sup> At the 180-MW Warrior Run plant, approximately 10 percent of the plant's CO<sub>2</sub> emissions (about 110,000 metric tons of CO<sub>2</sub> per year) has been captured since 2000 and sold to the food and beverage industry. AES's 320-MW coal-fired Shady Point plant captured CO<sub>2</sub> from an approximate 5 percent slipstream (about 66,000 metric tons of CO<sub>2</sub> per year) from 2001 through around 2019.<sup>249</sup> These facilities, which have operated for multiple years, clearly show the technical feasibility of post-combustion carbon capture.

The capture component of CCS has also been demonstrated at other industrial processes. Since 1978, the Searles Valley Minerals soda ash plant in Trona, California, has used an amine-based system to capture approximately 270,000 metric tons of CO<sub>2</sub> per year from the flue gas of a coal-fired industrial power plant that generates steam and power for onsite use. The captured CO<sub>2</sub> is used for the carbonation of brine in the process of producing soda ash.<sup>250</sup>

The Quest CO<sub>2</sub> capture facility in Alberta, Canada, uses amine-based CO<sub>2</sub>

capture retrofitted to three existing steam methane reformers at the Scotford Upgrader facility (operated by Shell Canada Energy) to capture and sequester approximately 80 percent of the CO<sub>2</sub> in the produced syngas.<sup>251</sup> The Quest facility has been operating since 2015 and captures approximately 1 million metric tons of CO<sub>2</sub> per year.

### (3) Capture Demonstrations at Combustion Turbines

While most demonstrations of CCS have been for applications other than combustion turbines, CCS has been successfully applied to an existing combined cycle EGU and several other projects are in development, as discussed immediately below. Currently available post-combustion amine-based carbon capture systems require that the flue gas be cooled prior to entering the carbon capture equipment. This holds true for the exhaust from a combustion turbine. The most energy efficient way to do this is to use a HSRG—which, as explained above, is an integral component of a combined cycle turbine system—to generate additional useful output. Because simple cycle combustion turbines do not incorporate a HRSG, the Agency is not considering the use of CCS as a potential component of the BSER for them.

#### (a) CCS on Combined Cycle EGUs

Examples of the use of CCS on combined cycle EGUs include the Bellingham Energy Center in south central Massachusetts and the proposed Peterhead Power Station in Scotland. The Bellingham plant used Fluor's Econamine FG Plus<sup>SM</sup> capture system and demonstrated the commercial viability of carbon capture on a combined cycle combustion turbine EGU using first-generation technology. The 40-MW slipstream capture facility operated from 1991 to 2005 and captured 85 to 95 percent of the CO<sub>2</sub> in the slipstream for use in the food industry.<sup>252</sup> In Scotland, the proposed 900-MW Peterhead Power Station combined cycle EGU with CCS is in the planning stages of development. It is anticipated that the power plant will be operational by the end of the 2020s and will have the potential to capture 90 percent of the CO<sub>2</sub> emitting from the combined cycle facility and sequester

up to 1.5 million metric tons of CO<sub>2</sub> annually. A storage site being developed 62 miles off the Scottish North Sea coast might serve as a destination for the captured CO<sub>2</sub>.<sup>253</sup> Moreover, an 1,800-MW NGCC EGU that will be constructed in West Virginia and will utilize CCS has been announced. The project is planned to begin operation later this decade, and its feasibility was partially credited to the expanded IRC section 45Q tax credit for sequestered CO<sub>2</sub> provided through the IRA.<sup>254</sup>

#### (b) Net Power Cycle

In addition, there are several planned projects using the NET Power Cycle.<sup>255</sup> The NET Power Cycle is a proprietary process for producing electricity that combusts a fuel with purified oxygen and uses supercritical CO<sub>2</sub> as the working fluid instead of water/steam. This cycle is designed to achieve thermal efficiencies of up to 59 percent.<sup>256</sup> Potential advantages of this cycle are that it emits no NO<sub>x</sub> and produces a stream of high-purity CO<sub>2</sub> that can be delivered by pipeline to a storage or sequestration site without extensive processing. A 50-MW (thermal) test facility in La Porte, Texas was completed in 2018 and was synchronized to the grid in 2021. There are several announced commercial projects proposing to use the NET Power Cycle. These include the 280-MW Broadwing Clean Energy Complex in Illinois, and several international projects.

#### (4) EPA05-Assisted CO<sub>2</sub> Capture Projects

While the EPA is proposing that the capture component of CCS is adequately demonstrated based solely on the other demonstrations of CO<sub>2</sub> capture discussed in this preamble, adequate demonstration of CO<sub>2</sub> capture technology is further corroborated by

<sup>253</sup> Buli, N. (2021, May 10). SSE, Equinor plan new gas power plant with carbon capture in Scotland. *Reuters*. <https://www.reuters.com/business/sustainable-business/sse-equinor-plan-new-gas-power-plant-with-carbon-capture-scotland-2021-05-11/>.

<sup>254</sup> Competitive Power Ventures (2022). *Multi-Billion Dollar Combined Cycle Natural Gas Power Station with Carbon Capture Announced in West Virginia*. Press Release. September 16, 2022. <https://www.cpv.com/2022/09/16/multi-billion-dollar-combined-cycle-natural-gas-power-station-with-carbon-capture-announced-in-west-virginia/>.

<sup>255</sup> <https://netpower.com/technology/>. The Net Power Cycle was formerly referred to as the Allam-Fetvedt cycle.

<sup>256</sup> Yellen, D. (2020, May 25). Allam Cycle carbon capture gas plants: 11 percent more efficient, all CO<sub>2</sub> captured. *Energy Post*. <https://energypost.eu/allam-cycle-carbon-capture-gas-plants-11-more-efficient-all-co2-captured/>.

<sup>257</sup> This allows for capture of over 97 percent of the CO<sub>2</sub> emissions. [www.netpower.com](http://www.netpower.com).

<sup>247</sup> SaskPower (October 18, 2022). *BD3 Status Update: Q3 2022*. <https://www.saskpower.com/about-us/our-company/blog/2022/bd3-status-update-q3-2022>.

<sup>248</sup> Dooley, J.J., et al. (2009). "An Assessment of the Commercial Availability of Carbon Dioxide Capture and Storage Technologies as of June 2009." U.S. DOE, Pacific Northwest National Laboratory, under Contract DE-AC05-76RL01830.

<sup>249</sup> Shady Point Plant (River Valley) was sold to Oklahoma Gas and Electric in 2019. <https://www.oklahoman.com/story/business/columns/2019/05/23/oklahoma-gas-and-electric-acquires-aes-shady-point-after-federal-approval/60454346007/>.

<sup>250</sup> IEA (2009). *World Energy Outlook 2009*, OECD/IEA, Paris.

<sup>251</sup> Quest Carbon Capture and Storage Project Annual Summary Report, Alberta Department of Energy: 2021. <https://open.alberta.ca/publications/quest-carbon-capture-and-storage-project-annual-report-2021>.

<sup>252</sup> U.S. Department of Energy (DOE). *Carbon Capture Opportunities for Natural Gas Fired Power Systems*. <https://www.energy.gov/fecm/articles/carbon-capture-opportunities-natural-gas-fired-power-systems>.

CO<sub>2</sub> capture projects assisted by grants, loan guarantees, and Federal tax credits for “clean coal technology” authorized by the EPAAct05. 80 FR 64541–42 (October 23, 2015).

(a) EPAAct05-Assisted CO<sub>2</sub> Capture Projects at Coal-Fired Steam Generating Units

Petra Nova is a 240 MW-equivalent capture facility that is the first at-scale application of carbon capture at a coal-fired power plant in the U.S. The system is located at the W.A. Parish Generating Station in Thompsons, Texas, and began operation in 2017, successfully capturing and sequestering CO<sub>2</sub> for several years. Although the system was put into reserve shutdown (*i.e.*, idled) in May 2020, citing the poor economics of utilizing captured CO<sub>2</sub> for enhanced oil recovery (EOR) at that time, there are reports of plans to restart the capture system.<sup>258</sup> A final report from National Energy Technology (NETL) details the success of the project and what was learned from this first-of-a-kind demonstration at scale.<sup>259</sup> The project used Mitsubishi Heavy Industry’s proprietary KM–CDR Process®, a process that is similar to an amine-based solvent process but that uses a proprietary solvent and is optimized for CO<sub>2</sub> capture from a coal-fired generator’s flue gas. During its operation, the project successfully captured 92.4 percent of the CO<sub>2</sub> from the slip stream of flue gas processed with 99.08 percent of the captured CO<sub>2</sub> sequestered by EOR. Plant Barry in Mobile, Alabama, began using the KM–CDR Process® in 2011 for a fully integrated 25-MW CCS project with a capture rate of 90 percent.<sup>260</sup> The CCS project at Plant Barry captured approximately 165,000 tons of CO<sub>2</sub> annually, which is then transported via pipeline and sequestered underground in geologic formations. See 80 FR 64552 (October 23, 2015).

(b) EPAAct05-Assisted CO<sub>2</sub> Capture Projects at Stationary Combustion Turbines

There are several EPAAct05-assisted projects related to NGCC units including:<sup>261 262 263 264 265</sup>

- General Electric (GE) (Bucks, Alabama) was awarded \$5,771,670 to retrofit an NGCC facility with CCS technology to capture 95 percent of CO<sub>2</sub> and is targeting commercial deployment by 2030.
- Wood Environmental & Infrastructure Solutions (Blue Bell, Pennsylvania) was awarded \$4,000,000 to complete an engineering design study for CO<sub>2</sub> capture at the Shell Chemicals Complex. The aim is to reduce CO<sub>2</sub> emissions by 95 percent using post-combustion technology to capture CO<sub>2</sub> from several plants, including an onsite natural gas CHP plant.
- General Electric Company, GE Research (Niskayuna, New York) was awarded \$1,499,992 to develop a design to capture 95 percent of CO<sub>2</sub> from NGCC flue gas with the potential to reduce electricity costs by at least 15 percent.
- SRI International (Menlo Park, California) was awarded \$1,499,759 to design, build, and test a technology that can capture at least 95 percent of CO<sub>2</sub> while demonstrating a 20 percent cost reduction compared to existing NGCC carbon capture.
- CORMETECH, Inc. (Charlotte, North Carolina) was awarded \$2,500,000 to further develop, optimize, and test a new, lower cost technology to capture CO<sub>2</sub> from NGCC flue gas and improve scalability to large NGCC plants.

<sup>261</sup> General Electric (GE) (2022). *U.S. Department of Energy Awards \$5.7 Million for GE-Led Carbon Capture Technology Integration Project Targeting to Achieve 95% Reduction of Carbon Emissions*. Press Release. February 15, 2022. <https://www.ge.com/news/press-releases/us-department-of-energy-awards-57-million-for-ge-led-carbon-capture-technology>.

<sup>262</sup> Larson, A. (2022). *GE-Led Carbon Capture Project at Southern Company Site Gets DOE Funding*. Power. <https://www.powermag.com/ge-led-carbon-capture-project-at-southern-company-site-gets-doe-funding/>.

<sup>263</sup> U.S. Department of Energy (DOE) (2021). *DOE Invests \$45 Million to Decarbonize the Natural Gas Power and Industrial Sectors Using Carbon Capture and Storage*. October 6, 2021. <https://www.energy.gov/articles/doe-invests-45-million-decarbonize-natural-gas-power-and-industrial-sectors-using-carbon>.

<sup>264</sup> DOE (2022). *Additional Selections for Funding Opportunity Announcement 2515*. Office of Fossil Energy and Carbon Management. <https://www.energy.gov/fecm/additional-selections-funding-opportunity-announcement-2515>.

<sup>265</sup> DOE (2019). *FOA 2058: Front-End Engineering Design (FEED) Studies for Carbon Capture Systems on Coal and Natural Gas Power Plants*. Office of Fossil Energy and Carbon Management. <https://www.energy.gov/fecm/foa-2058-front-end-engineering-design-feed-studies-carbon-capture-systems-coal-and-natural-gas>.

• TDA Research, Inc. (Wheat Ridge, Colorado) was awarded \$2,500,000 to build and test a post-combustion capture process to improve the performance of NGCC flue gas CO<sub>2</sub> capture.

• GE Gas Power (Schenectady, New York) was awarded \$5,771,670 to perform an engineering design study to incorporate a 95 percent CO<sub>2</sub> capture solution for an existing NGCC site while providing lower costs and scalability to other sites.

• Electric Power Research Institute (EPRI) (Palo Alto, California) was awarded \$5,842,517 to complete a study to retrofit a 700-Mwe NGCC with a carbon capture system to capture 95 percent of CO<sub>2</sub>.

• Gas Technology Institute (Des Plaines, Illinois) was awarded \$1,000,000 to develop membrane technology capable of capturing more than 97 percent of NGCC CO<sub>2</sub> flue gas and demonstrate upwards of 40 percent reduction in costs.

• RTI International (Research Triangle Park, North Carolina) was awarded \$1,000,000 to test a novel non-aqueous solvent technology aimed at demonstrating 97 percent capture efficiency from simulated NGCC flue gas.

• Tampa Electric Company (Tampa, Florida) was awarded \$5,588,173 to conduct a study retrofitting Polk Power Station with post-combustion CO<sub>2</sub> capture technology aiming to achieve a 95 percent capture rate.

There are also several announced NET Power Cycle based CO<sub>2</sub> capture projects that are EPAAct05-assisted. These include the 280–MW Coyote Clean Power Project on the Southern Ute Indian Reservation in Colorado and a 300–MW project located near Occidental’s Permian Basin operations close to Odessa, Texas. Commercial operation of the facility near Odessa, Texas is expected in 2026.

(5) CO<sub>2</sub> Transport

(a) Demonstration of CO<sub>2</sub> Transport

The majority of CO<sub>2</sub> transported in the U.S. is transported through pipelines. Pipeline transport of CO<sub>2</sub> has been occurring for nearly 60 years, and over this time, the design, construction, and operational requirements for CO<sub>2</sub> pipelines have been demonstrated.<sup>266</sup> Moreover, the U.S. CO<sub>2</sub> pipeline network has steadily expanded, and appears primed to continue to do so. The Pipeline and Hazardous Materials

<sup>266</sup> For additional information on CO<sub>2</sub> transportation infrastructure project timelines, costs and other details, please see the *GHG Mitigation Measures for Steam Generating Units* TSD.

<sup>258</sup> “The World’s Largest Carbon Capture Plant Gets a Second Chance in Texas” Bloomberg News, February 8, 2023. <https://www.bloomberg.com/news/articles/2023-02-08/the-world-s-largest-carbon-capture-plant-gets-a-second-chance-in-texas?leadSource=verify%20wall>.

<sup>259</sup> W.A. Parish Post-Combustion CO<sub>2</sub> Capture and Sequestration Demonstration Project, Final Scientific/Technical Report (March 2020). <https://www.osti.gov/servlets/purl/1608572>.

<sup>260</sup> U.S. Department of Energy (DOE). National Energy Technology Laboratory (NETL). <https://www.netl.doe.gov/node/1741>.

Safety Administration (PHMSA) reported that 5,339 miles of CO<sub>2</sub> pipelines were in operation in 2021, a 13 percent increase in CO<sub>2</sub> pipeline miles since 2011.<sup>267</sup> Moreover, several major projects have recently been announced to expand the CO<sub>2</sub> pipeline network across the U.S. For example, the Midwest Carbon Express has proposed to add more than 2,000 miles of dedicated CO<sub>2</sub> pipeline in Iowa, Nebraska, North Dakota, South Dakota, and Minnesota. The Midwest Carbon Express is projected to begin operations in 2024.<sup>268</sup> Another example is the Heartland Greenway project, which has proposed to add more than 1,300 miles of dedicated CO<sub>2</sub> pipeline in Iowa, Nebraska, South Dakota, Minnesota, and Illinois. The Heartland Greenway project is projected to start its initial system commissioning in the second quarter of 2025.<sup>269</sup> The proximity to existing or planned CO<sub>2</sub> pipelines and geologic sequestration sites can be a factor to consider in the construction of stationary combustion turbines, and pipeline expansion, when needed, has been proven to be feasible.<sup>270 271</sup> The IIJA also included substantial support for CO<sub>2</sub> transportation infrastructure.

#### (b) Security of CO<sub>2</sub> Transport

The safety of existing and new CO<sub>2</sub> pipelines that transport CO<sub>2</sub> in a supercritical state is exclusively regulated by PHMSA. These regulations include standards related to pipeline design, construction, and testing, operations and maintenance, operator reporting requirements, operator qualifications, corrosion control and pipeline integrity management, incident reporting and response, and public awareness and communications. PHMSA has regulatory authority to

conduct inspections of supercritical CO<sub>2</sub> pipeline operations and issue notices to operators in the event of operator noncompliance with regulatory requirements.<sup>272</sup> Furthermore, PHMSA initiated a rulemaking in 2022 to develop and implement new measures to strengthen its safety oversight of supercritical CO<sub>2</sub> pipelines following investigation into a CO<sub>2</sub> pipeline failure in Satartia, Mississippi in 2020.<sup>273</sup> Following that incident, PHMSA also issued a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order (Notice) to the operator related to probable violations of Federal pipeline safety regulations. The Notice was ultimately resolved through a Consent Agreement between PHMSA and the operator that includes the assessment of civil penalties and identifies actions for the operator to take to address the alleged violations and risk conditions.<sup>274</sup> PHMSA has further issued an updated nationwide advisory bulletin to all pipeline operators, and solicited research proposals to strengthen CO<sub>2</sub> pipeline safety.<sup>275</sup> Additionally, certain States have authority delegated from the U.S. Department of Transportation to conduct safety inspections and enforce State and Federal pipeline safety regulations for intrastate CO<sub>2</sub> pipelines.<sup>276 277</sup> These CO<sub>2</sub> pipeline controls, in addition to the PHMSA standards, ensure that captured CO<sub>2</sub> will be securely conveyed to a sequestration site.

States are also directly involved in siting proposed CO<sub>2</sub> pipeline projects. CO<sub>2</sub> pipeline siting authorities, landowner rights, and eminent domain laws reside with the States and vary from State to State. Pipeline developers may secure rights-of-way for proposed projects through voluntary agreements with landowners; pipeline developers

may also secure rights-of-way through eminent domain authority, which typically accompanies siting permits from State utility regulators with jurisdiction over CO<sub>2</sub> pipeline siting.<sup>278</sup>

Transportation of CO<sub>2</sub> via pipeline is the most viable and cost-effective method at the scale needed for sequestration of captured EGU CO<sub>2</sub> emissions. However, CO<sub>2</sub> can also be liquified and transported via vessel (e.g., ship), highway (e.g., cargo tank, portable tank), ship, or rail (e.g., tank cars) when pipelines are not available. Liquefied natural gas and liquefied petroleum gases are already routinely transported via ship at a large scale, and the properties of liquified CO<sub>2</sub> are not significantly different.<sup>279</sup> In fact, the food and beverage as well as specialty gas industries already have experience transporting CO<sub>2</sub> by rail.<sup>280</sup> Highway road tankers and rail transportation can provide for the transport of smaller quantities of CO<sub>2</sub> and can be used in tandem with other modes of transportation to move CO<sub>2</sub> captured from an EGU.<sup>281</sup>

#### (6) Geologic Sequestration of CO<sub>2</sub>

##### (a) Security of Sequestration

Geologic sequestration (or storage), which is the long-term containment of a CO<sub>2</sub> stream in subsurface geologic formations, is well proven and broadly available in many locations across the U.S. Independent analyses of the potential availability of geologic sequestration capacity in the United States have been conducted by DOE, and the U.S. Geological Survey (USGS) has also undertaken a comprehensive assessment of geologic sequestration resources in the U.S.<sup>282 283</sup> Geologic sequestration is based on a demonstrated understanding of the trapping processes that retain CO<sub>2</sub> in the subsurface; most importantly, geologic sequestration occurs securely when the CO<sub>2</sub> is trapped under a low permeability

<sup>267</sup> U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration, "Hazardous Annual Liquid Data." 2021. <https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids>.

<sup>268</sup> Beach, Jeff. "World's Largest Carbon Capture Pipeline Aims to Connect 31 Ethanol Plants, Cut across Upper Midwest." Agweek, December 6, 2021. <https://www.agweek.com/business/worlds-largest-carbon-capture-pipeline-aims-to-connect-31-ethanol-plants-cut-across-upper-midwest>.

<sup>269</sup> Navigator CO<sub>2</sub>. "NavCO<sub>2</sub> Fact Sheet." 2022. <https://d3o151.p3cdn1.secureserver.net/wp-content/uploads/2022/08/HG-Fact-Sheet-vFINAL.pdf>.

<sup>270</sup> For additional information regarding planned or announced pipelines please see section 4.6.1.2 of the GHG Mitigation Measures for Steam Generating Units TSD.

<sup>271</sup> U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration, "Hazardous Annual Liquid Data." 2021. <https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids>.

<sup>272</sup> See generally 49 CFR 190–199.

<sup>273</sup> PHMSA, "PHMSA Announces New Safety Measures to Protect Americans From Carbon Dioxide Pipeline Failures After Satartia, MS Leak." 2022. <https://www.phmsa.dot.gov/news/phmsa-announces-new-safety-measures-protect-americans-carbon-dioxide-pipeline-failures>.

<sup>274</sup> Consent Order, Denbury Gulf Coast Pipelines, LLC, CPF No. 4–2022–017–NOPV (U.S. Dep't of Transp. Mar. 24, 2023). [https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail\\_cpf\\_42022017NOPV.html?nocache=7208](https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_42022017NOPV.html?nocache=7208).

<sup>275</sup> *Ibid.*

<sup>276</sup> New Mexico Public Regulation Commission. 2023. *Transportation Pipeline Safety*. New Mexico Public Regulation Commission, Bureau of Pipeline Safety. <https://www.nm-prc.org/transportation/pipeline-safety>.

<sup>277</sup> Texas Railroad Commission. 2023. *Oversight & Safety Division*. Texas Railroad Commission. <https://www.rrc.texas.gov/about-us/organization-and-activities/rrc-divisions/oversight-safety-division>.

<sup>278</sup> Congressional Research Service. 2022. *Carbon Dioxide Pipelines: Safety Issues*, June 3, 2022. <https://crsreports.congress.gov/product/pdf/IN/IN11944>.

<sup>279</sup> Intergovernmental Panel on Climate Change. (2005). *Special Report on Carbon Dioxide Capture and Storage*.

<sup>280</sup> EU CCUS Projects Network. (2019). *Briefing on Carbon Dioxide Specifications for Transport*. [https://www.ccusnetwork.eu/sites/default/files/TG3\\_Briefing-CO2-Specifications-for-Transport.pdf](https://www.ccusnetwork.eu/sites/default/files/TG3_Briefing-CO2-Specifications-for-Transport.pdf).

<sup>281</sup> *Ibid.*

<sup>282</sup> U.S. DOE NETL, *Carbon Storage Atlas, Fifth Edition*, September 2015. <https://www.netl.doe.gov/research/coal/carbon-storage/atlasv>.

<sup>283</sup> U.S. Geological Survey Geologic Carbon Dioxide Storage Resources Assessment Team, 2013, *National assessment of geologic carbon dioxide storage resources—Summary: U.S. Geological Survey Factsheet 2013–2020*. <http://pubs.usgs.gov/fs/2013/3020/>.

seal. There have been numerous efforts demonstrating successful geologic sequestration projects in the U.S. and overseas, and the U.S. has developed a detailed set of regulatory requirements to ensure the security of sequestered CO<sub>2</sub>.

(i) Demonstration of Geologic Sequestration

Existing project and regulatory experience, along with other information, indicate that geologic sequestration is a viable long-term CO<sub>2</sub> sequestration option. The effectiveness of long-term trapping of CO<sub>2</sub> has been demonstrated by natural analogues in a range of geologic settings where CO<sub>2</sub> has remained trapped for millions of years.<sup>284</sup> For example, CO<sub>2</sub> has been trapped for more than 65 million years in the Jackson Dome, located near Jackson, Mississippi.<sup>285</sup> Other examples of natural CO<sub>2</sub> sources include the Bravo Dome and the McElmo Dome in New Mexico and Colorado, respectively.<sup>286</sup> These naturally occurring sequestration sites demonstrate the feasibility of containing the large volumes of CO<sub>2</sub> that may be captured from fossil fuel-fired EGUs, as these sites have held volumes of CO<sub>2</sub> that are much larger than the volume of CO<sub>2</sub> expected to be captured from a fossil fuel-fired EGU over the course of its useful life. In 2010, the DOE estimated CO<sub>2</sub> reserves of 594 million metric tons at Jackson Dome, 424 million metric tons at Bravo Dome, and 530 million metric tons at McElmo Dome.<sup>287</sup> Between 2000 and 2020, the Department of Energy-sponsored research totaling \$1 billion to prove carbon storage technologies and enable large-scale deployment. Research conducted through the Department of Energy's Regional Carbon Sequestration Partnerships has demonstrated geologic sequestration through a series of field research projects that increased in scale over time, injecting more than 11 million tons of CO<sub>2</sub> with no indications of negative impacts to either human

<sup>284</sup> Holloway, S., *et al.* Natural Emissions of CO<sub>2</sub> from the Geosphere and their Bearing on the Geological Storage of Carbon Dioxide. 2007. Energy 32: 1194–1201.

<sup>285</sup> Intergovernmental Panel on Climate Change. (2005). Special Report on Carbon Dioxide Capture and Storage.

<sup>286</sup> See K.J. Sathaye, M.A. Hesse, M. Cassidy, D.F. Stockli, "Constraints on the magnitude and rate of CO<sub>2</sub> dissolution at Bravo Dome natural gas field." *Proceedings of the National Academy of Sciences* 111, 15332–15337. 2014. and Kinder Morgan. "Carbon Dioxide (CO<sub>2</sub>) Operations; CO<sub>2</sub> Supply." <https://www.kindermorgan.com/Operations/CO2/Index>.

<sup>287</sup> DiPietro, P., *et al.* 2012. "A Note on Sources of CO<sub>2</sub> Supply for Enhanced-Oil Recovery Operations." SPE Economics & Management.

health or the environment.<sup>288</sup> Building on this experience, the Department of Energy launched the Carbon Storage Assurance Facility Enterprise (CarbonSAFE) Initiative in 2016 to demonstrate how knowledge from the Regional Carbon Sequestration Partnerships can be applied to commercial-scale safe storage. This initiative is furthering the development and refinement of technologies and techniques critical to the characterization of potential sequestration sites greater than 50 million tons.<sup>289</sup>

Numerous additional saline facilities are under development across the United States. The Great Plains Synfuel Plant currently captures 2 million metric tons of CO<sub>2</sub> per year, which is used for enhanced oil recovery (EOR); a planned addition of saline sequestration for this facility is expected to increase the amount captured and sequestered (through both geologic sequestration and EOR) to 3.5 million metric tons of CO<sub>2</sub> per year.<sup>290</sup> The EPA is currently reviewing Underground Injection Control (UIC) Class VI geologic sequestration well permit applications for proposed sequestration sites in at least seven States.<sup>291</sup> <sup>292</sup>

Geologic sequestration has been proven to be successful and safe in projects internationally. The oldest international facility has geologically sequestered CO<sub>2</sub> for over twenty years. In Norway, facilities conduct offshore sequestration under the Norwegian continental shelf.<sup>293</sup> In addition, the Sleipner CO<sub>2</sub> Storage facility in the

<sup>288</sup> Safe Geologic Storage of Captured Carbon Dioxide—DOE's Carbon Storage R&D Program: Two Decades in Review," National Energy Technology Laboratory, Pittsburgh, April 13, 2020. [https://www.netl.doe.gov/sites/default/files/Safe%20Geologic%20Storage%20of%20Captured%20Carbon%20Dioxide\\_April%2015%202020\\_FINAL.pdf](https://www.netl.doe.gov/sites/default/files/Safe%20Geologic%20Storage%20of%20Captured%20Carbon%20Dioxide_April%2015%202020_FINAL.pdf).

<sup>289</sup> <https://netl.doe.gov/carbon-management/carbon-storage/carbonsafe>.

<sup>290</sup> Basin Electric Power Cooperative. "Great Plains Synfuels Plant Potential to Be Largest Coal-Based Carbon Capture and Storage Project to Use Geologic Storage," September 9, 2021. <https://www.basinelectric.com/News-Center/news-releases/Great-Plains-Synfuels-Plant-potential-to-be-largest-coal-based-carbon-capture-and-storage-project-to-use-geologic-storage>.

<sup>291</sup> UIC regulations for Class VI wells facilitate the injection of CO<sub>2</sub> for geologic sequestration while protecting human health and the environment by ensuring the protection of underground sources of drinking water. The major components to be included in UIC Class VI permits are detailed further in section VII.F.3.b.iii.

<sup>292</sup> U.S. EPA Class VI Underground Injection Control (UIC) Class VI Wells Permitted by EPA as of January 12, 2023. <https://www.epa.gov/uic/class-vi-wells-permitted-epa>.

<sup>293</sup> Intergovernmental Panel on Climate Change. (2005). Special Report on Carbon Dioxide Capture and Storage.

North Sea, which began operations in 1996, injects around 1 million metric tons of CO<sub>2</sub> per year from natural gas processing.<sup>294</sup> The Snohvit CO<sub>2</sub> Storage facility in the Barents Sea, which began operations in 2008, injects around 0.7 million metric tons of CO<sub>2</sub> per year from natural gas processing. The SaskPower carbon capture and storage facility at Boundary Dam Power Station in Saskatchewan, Canada had, as of mid-2022, captured 4.6 million tons of CO<sub>2</sub> since it began operating in 2014.<sup>295</sup> Other international sequestration facilities in operation include Glacier Gas Plant MCCS (Canada),<sup>296</sup> Quest (Canada), and Qatar LNG CCS (Qatar).

(ii) EPAAct05-Assisted Geologic Sequestration Projects

While the EPA is proposing that the sequestration component of CCS is adequately demonstrated based solely on the other demonstrations of geologic sequestration discussed in this preamble, adequate demonstration of geologic sequestration is further corroborated by geologic sequestration currently operational and planned projects assisted by grants, loan guarantees, and Federal tax credits for "clean coal technology" authorized by the EPAAct05. 80 FR 64541–42 (October 23, 2015).

Two saline sequestration facilities are currently in operation in the U.S. and several are under development.<sup>297</sup> The Illinois Industrial Carbon Capture and Storage Project began injecting CO<sub>2</sub> from ethanol production into the Mount Simon Sandstone in April 2017. The project has the potential to store up to 5.5 million metric tons of CO<sub>2</sub>,<sup>298</sup> and, according to the facility's report to the EPA's GHGRP, as of 2021, 2.5 million metric tons of CO<sub>2</sub> had been injected

<sup>294</sup> Zapantis, Alex, Noora Al Amer, Ian Havercroft, Ruth Ivory-Moore, Matt Steyn, Xiaoliang Yang, Ruth Gebremedhin, *et al.* "Global Status of CCS 2022." Global CCS Institute, 2022. <https://status22.globalccsinstitute.com/2022-status-report/introduction/>.

<sup>295</sup> Boundary Dam Carbon Capture Project. <https://www.saskpower.com/Our-Power-Future/Infrastructure-Projects/Carbon-Capture-and-Storage/Boundary-Dam-Carbon-Capture-Project>.

<sup>296</sup> Zapantis, Alex, Noora Al Amer, Ian Havercroft, Ruth Ivory-Moore, Matt Steyn, Xiaoliang Yang, Ruth Gebremedhin, *et al.* "Global Status of CCS 2022." Global CCS Institute, 2022. <https://status22.globalccsinstitute.com/>.

<sup>297</sup> Zapantis, Alex, Noora Al Amer, Ian Havercroft, Ruth Ivory-Moore, Matt Steyn, Xiaoliang Yang, Ruth Gebremedhin, *et al.* "Global Status of CCS 2022." Global CCS Institute, 2022. <https://status22.globalccsinstitute.com/>.

<sup>298</sup> Archer Daniels Midland, Monitoring, Reporting, and Verification Plan CCS#2, 2017. [https://www.epa.gov/sites/default/files/2017-01/documents/adm\\_mrv\\_plan.pdf](https://www.epa.gov/sites/default/files/2017-01/documents/adm_mrv_plan.pdf).

into the saline reservoir.<sup>299</sup> The Red Trail Energy CCS facility in North Dakota, which is the first saline sequestration facility in the U.S. to operate under a State-led regulatory authority for carbon storage, began injecting CO<sub>2</sub> from ethanol production in 2022.<sup>300</sup> This project is expected to inject a total of 3.7 million tons of CO<sub>2</sub> over its lifetime.<sup>301</sup>

There are additional planned geologic sequestration facilities across the United States.<sup>302</sup> Project Tundra, a saline sequestration project planned at the lignite-fired Milton R. Young Station in North Dakota is projected to capture 4 million metric tons of CO<sub>2</sub> annually.<sup>303</sup> Finally, in Wyoming, Class VI permit applications have been filed for a proposed saline sequestration facility located in Southwestern Wyoming. At full capacity, the facility will permanently store up to 5 million metric tons of CO<sub>2</sub> annually from industrial facilities in the Nugget saline sandstone reservoir.<sup>304</sup>

### (iii) Security of Geologic Sequestration

Regulatory oversight of geologic sequestration is built upon an understanding of the proven mechanisms by which CO<sub>2</sub> is retained in geologic formations. These mechanisms include (1) Structural and stratigraphic trapping (generally trapping below a low permeability confining layer); (2) residual CO<sub>2</sub> trapping (retention as an immobile phase trapped in the pore spaces of the geologic formation); (3) solubility trapping (dissolution in the in situ formation fluids); (4) mineral trapping (reaction with the minerals in the geologic formation and confining layer

to produce carbonate minerals); and (5) preferential adsorption trapping (adsorption onto organic matter in coal and shale).

Based on the understanding developed from natural analogs and existing projects, the security of sequestered CO<sub>2</sub> is expected to increase over time after injection ceases.<sup>305</sup> This is due to trapping mechanisms that reduce CO<sub>2</sub> mobility over time, e.g., physical CO<sub>2</sub> trapping by a low-permeability geologic seal or chemical trapping by conversion or adsorption.<sup>306</sup> In addition, site characterization, site operations, and monitoring strategies as required through the Underground Injection Control (UIC) Program and the GHGRP, discussed below, work in combination to ensure security and transparency.

The UIC Program, the GHGRP and other regulatory requirements comprise a detailed regulatory framework for facilitating geologic sequestration in the U.S., according to a 2021 report from the Council on Environmental Quality (CEQ). This framework is already in place and capable of reviewing and permitting CCS activities.<sup>307</sup>

This regulatory framework includes the UIC Class VI well regulations, promulgated under the authority of the Safe Drinking Water Act (SDWA); and the GHGRP, promulgated under the authority of the CAA. The requirements of the UIC and GHGRP programs work together to ensure that sequestered CO<sub>2</sub> will remain securely stored underground. The UIC regulations facilitate the injection of CO<sub>2</sub> for geologic sequestration while protecting human health and the environment by ensuring the protection of underground sources of drinking water (USDW). These regulations are built upon nearly a half-century of Federal experience regulating underground injection wells, and many additional years of State UIC program expertise. The IIJA established a program to assist States and Tribal regulatory authorities interested in Class VI primacy.<sup>308</sup> As the EPA considers

Class VI primacy applications, it has indicated that it will require approaches that balance the use of geologic sequestration with mitigation of impacts on vulnerable communities. States and Tribes applying for Class VI primacy are asked to support communities by implementing an inclusive public participation process, considering environmental justice impacts on communities, enforcing Class VI regulatory protections and incorporating other mitigation measures.<sup>309</sup>

To complement the UIC regulations, the EPA included in the GHGRP air-side monitoring and reporting requirements for CO<sub>2</sub> capture, underground injection, and geologic sequestration. These requirements are included in 40 CFR part 98, subpart RR, also referred to as “GHGRP subpart RR.”

The GHGRP subpart RR requirements provide the monitoring mechanisms to identify, quantify, and address potential leakage. The EPA designed them to complement and build on UIC monitoring and testing requirements. Although the regulations for the UIC program are designed to ensure protection of USDWs from endangerment, the practical effect of these GHGRP subpart RR requirements is that they also prevent releases of CO<sub>2</sub> to the atmosphere.<sup>310</sup>

Major components to be included in UIC Class VI permits are site characterization, area of review,<sup>311</sup> corrective action,<sup>312</sup> well construction and operation, testing and monitoring, financial responsibility, post-injection site care, well plugging, emergency and remedial response, and site closure. Reporting under GHGRP subpart RR is required for, but not limited to, all facilities that have received a UIC Class VI permit for injection of CO<sub>2</sub>.<sup>313</sup> GHGRP subpart RR requires facilities

<sup>299</sup> EPA Greenhouse Gas Reporting Program. Data reported as of August 12, 2022.

<sup>300</sup> Zapantis, Alex, Noora Al Amer, Ian Havercroft, Ruth Ivory-Moore, Matt Steyn, Xiaoliang Yang, Ruth Gebremedhin, et al. “Global Status of CCS 2022.” Global CCS Institute, 2022. <https://status22.globalccsinstitute.com>.

<sup>301</sup> North Dakota Industrial Commission, NDIC Case No. 28848—Draft Permit Fact Sheet and Storage Facility Permit Application.” <https://www.dmr.nd.gov/oilgas/GeoStorageofCO2.asp>. This injection well is permitted by North Dakota.

<sup>302</sup> In addition, Denbury Resources injected CO<sub>2</sub> into a depleted oil and gas reservoir at a rate greater than 1.2 million tons/year as part of a DOE Southeast Regional Carbon Sequestration Partnership study. The Texas Bureau of Economic Geology tested a wide range of surface and subsurface monitoring tools and approaches to document sequestration efficiency and sequestration permanence at the Cranfield oilfield in Mississippi. Texas Bureau of Economic Geology, “Cranfield Log.” <https://www.beg.utexas.edu/gccc/research/cranfield>.

<sup>303</sup> Project Tundra. “Project Tundra.” <https://www.projecttundra.com/>.

<sup>304</sup> Wyoming DEQ Class VI Permit Applications. <https://deq.wyoming.gov/water-quality/groundwater/uic/class-vi/>.

<sup>305</sup> “Report of the Interagency Task Force on Carbon Capture and Storage.” 2010. <https://www.osti.gov/servlets/purl/985209>.

<sup>306</sup> See, e.g., Intergovernmental Panel on Climate Change. (2005). Special Report on Carbon Dioxide Capture and Storage.

<sup>307</sup> CEQ. “Council on Environmental Quality Report to Congress on Carbon Capture, Utilization, and Sequestration.” 2021. <https://www.whitehouse.gov/wp-content/uploads/2021/06/CEQ-CCUS-Permitting-Report.pdf>.

<sup>308</sup> On April 27, 2023, the EPA Administrator signed a proposed rule to approve the State of Louisiana’s request to have primacy for UIC Class VI wells within the state. Louisiana is the third state to request primacy for UIC Class VI wells. <https://www.epa.gov/uic/primary-enforcement-authority-underground-injection-control-program-0>.

<sup>309</sup> EPA. Letter from the EPA Administrator Michael S. Regan to U.S. State Governors. December 9, 2022. [https://www.epa.gov/system/files/documents/2022-12/AD.Regan\\_GOVs\\_Sig\\_Class%20VI.12-9-22.pdf](https://www.epa.gov/system/files/documents/2022-12/AD.Regan_GOVs_Sig_Class%20VI.12-9-22.pdf).

<sup>310</sup> In 2022, EPA proposed a new GHGRP subpart, “Geologic Sequestration of Carbon Dioxide with Enhanced Oil Recovery (EOR) Using ISO 27916” (or GHGRP subpart VV). For more information on proposed GHGRP subpart VV, see section VII.K.2 of this preamble.

<sup>311</sup> Per 40 CFR 146.84(a), the area of review is the region surrounding the geologic sequestration project where USDWs may be endangered by the injection activity. The area of review is delineated using computational modeling that accounts for the physical and chemical properties of all phases of the injected carbon dioxide stream and is based on available site characterization, monitoring, and operational data.

<sup>312</sup> UIC permitting authorities may require corrective action for existing wells within the area of review to ensure protection of underground sources of drinking water.

<sup>313</sup> 40 CFR 98.440.



meeting the source category definition (40 CFR 98.440) for any well or group of wells to report basic information on the mass of CO<sub>2</sub> received for injection; develop and implement an EPA-approved monitoring, reporting, and verification (MRV) plan; report the mass of CO<sub>2</sub> sequestered using a mass balance approach; and report annual monitoring activities.<sup>314 315 316 317</sup> Although deep subsurface monitoring is required for UIC Class VI wells at 40 CFR 146.90 and is the primary means of determining if there are any leaks to a USDW, and is generally effective in doing so, the surface air and soil gas monitoring employed under a GHGRP subpart RR MRV Plan can be utilized in addition to subsurface monitoring required under 40 CFR 146.90, if required by the UIC Program Director under 40 CFR 146.90(h), to further ensure protection of USDWs.<sup>318</sup> The MRV plan includes five major components: a delineation of monitoring areas based on the CO<sub>2</sub> plume location; an identification and evaluation of the potential surface leakage pathways and an assessment of the likelihood, magnitude, and timing, of surface leakage of CO<sub>2</sub> through these pathways; a strategy for detecting and quantifying any surface leakage of CO<sub>2</sub> in the event leakage occurs; an approach for establishing the expected baselines for monitoring CO<sub>2</sub> surface leakage; and, a summary of considerations made to calculate site-specific variables for the mass balance equation.<sup>319</sup>

Geologic sequestration efforts on Federal lands as well as those efforts that are directly supported with Federal funds may need to comply with other regulations, depending on the nature of the project.<sup>320</sup>

#### (b) Broad Availability of Sequestration

Geologic sequestration potential for CO<sub>2</sub> is widespread and available throughout the U.S. Nearly every State in the U.S. has or is in close proximity to formations with geologic sequestration potential, including areas offshore. These areas include deep saline formation, unmineable coal seams, and oil and gas reservoirs. Moreover, the amount of storage capacity can readily accommodate the amount of CO<sub>2</sub> for which sequestration

could be required under this proposed rule.

The DOE and the United States Geological Survey (USGS) have independently conducted preliminary analyses of the availability and potential CO<sub>2</sub> sequestration resources in the U.S. The DOE estimates are compiled in the DOE's National Carbon Sequestration Database and Geographic Information System (NATCARB) using volumetric models and are published in its Carbon Utilization and Sequestration Atlas (NETL Atlas).<sup>321</sup> The DOE estimates that areas of the U.S. with appropriate geology have a sequestration potential of at least 2,400 billion to over 21,000 billion metric tons of CO<sub>2</sub> in deep saline formations, unmineable coal seams, and oil and gas reservoirs.<sup>322</sup> The USGS assessment estimates a mean of 3,000 billion metric tons of subsurface CO<sub>2</sub> sequestration potential across the U.S.<sup>323</sup>

With respect to deep saline formations, the DOE estimates a sequestration potential of at least 2,200 billion metric tons of CO<sub>2</sub> in these formations in the U.S. At least 37 States have geologic characteristics that are amenable to deep saline sequestration, and an additional 6 States are within 100 kilometers of potentially amenable deep saline formations in either onshore or offshore locations.<sup>324 325</sup>

Unmineable coal seams offer another potential option for geologic sequestration of CO<sub>2</sub>. Enhanced coalbed methane recovery is the process of injecting and storing CO<sub>2</sub> in unmineable coal seams to enhance methane recovery. These operations take advantage of the preferential chemical affinity of coal for CO<sub>2</sub> relative to the methane that is naturally found on the surfaces of coal. When CO<sub>2</sub> is injected, it is adsorbed to the coal surface and releases methane that can then be captured and produced. This process effectively "locks" the CO<sub>2</sub> to the coal,

where it remains stored. States with the potential for sequestration in unmineable coal seams include Iowa and Missouri, which have little to no saline sequestration potential and have existing coal-fired EGUs. Unmineable coal seams have a sequestration potential of at least 54 billion metric tons of CO<sub>2</sub>, or 2 percent of total potential in the U.S., and are located in 22 States.<sup>326</sup>

The potential for CO<sub>2</sub> sequestration in unmineable coal seams has been demonstrated in small-scale demonstration projects, including the Allison Unit pilot project in New Mexico, which injected a total of 270,000 tons of CO<sub>2</sub> over a six-year period (1995–2001). Further, DOE Regional Carbon Sequestration Partnership projects have injected CO<sub>2</sub> volumes in unmineable coal seams ranging from 90 tons to 16,700 tons, and completed site characterization, injection, and post-injection monitoring for sites.<sup>327 328</sup> DOE has judged unmineable coal seams worthy of inclusion in the NETL Atlas.<sup>329</sup>

Although the large-scale injection of CO<sub>2</sub> in coal seams can lead to swelling of coal, the literature also suggests that there are available technologies and techniques to compensate for the resulting reduction in injectivity.<sup>330</sup> Further, the reduced injectivity can be anticipated and accommodated in sizing and characterizing prospective sequestration sites.

There is sufficient technical basis and scientific evidence that depleted oil and gas reservoirs represent another option for geologic storage. The reservoir characteristics of older fields are well known as a result of exploration and many years of hydrocarbon production and, in many areas, infrastructure

<sup>326</sup> U.S. DOE NETL, *Carbon Storage Atlas, Fifth Edition*, September 2015. <https://www.netl.doe.gov/research/coal/carbon-storage/atlasv>.

<sup>327</sup> M. Godec et al., "CO<sub>2</sub>-ECBM: A Review of its Status and Global Potential," *Energy Procedia* 63: 5858–5869 (2014). <https://doi.org/10.1016/j.egypro.2014.11.619>.

<sup>328</sup> N. Ripepi et al., "Central Appalachian Basin Unconventional (Coal/Organic Shale) Reservoir Small Scale CO<sub>2</sub> Injection," US DOE/NETL Annual Carbon Storage and Oil and Natural Gas Technologies Review Meeting (2017). [https://www.netl.doe.gov/sites/default/files/event-proceedings/2017/carbon-storage-oil-and-natural-gas/thur-Nino-Ripepi-VirginiaTech.DOE Meeting.CoalShaleUpdate.8.3.2017.pdf](https://www.netl.doe.gov/sites/default/files/event-proceedings/2017/carbon-storage-oil-and-natural-gas/thur-Nino-Ripepi-VirginiaTech.DOE%20Meeting.CoalShaleUpdate.8.3.2017.pdf).

<sup>329</sup> U.S. DOE NETL, *Carbon Storage Atlas, Fifth Edition*, September 2015. <https://www.netl.doe.gov/research/coal/carbon-storage/atlasv>.

<sup>330</sup> Xiachun Li & Zhi-Ming Fang, "Current Status and Technical Challenges of CO<sub>2</sub> Storage in Coal Seams and Enhanced Coalbed Methane Recovery: An Overview," *International Journal of Coal Science & Technology*, 93, 99 (2014) (suggesting existing technologies that can be used to address injectivity reduction in unmineable coal seams).

<sup>314</sup> 40 CFR 98.446.

<sup>315</sup> 40 CFR 98.448.

<sup>316</sup> 40 CFR 98.446(f)(9) and (10).

<sup>317</sup> 40 CFR 98.446(f)(12).

<sup>318</sup> See 75 FR 77263 (December 10, 2010).

<sup>319</sup> 40 CFR 98.448(a).

<sup>320</sup> CEQ, "Council on Environmental Quality Report to Congress on Carbon Capture, Utilization, and Sequestration." 2021. <https://www.whitehouse.gov/wp-content/uploads/2021/06/CEQ-CCUS-Permitting-Report.pdf>.

<sup>321</sup> U.S. DOE NETL, *Carbon Storage Atlas, Fifth Edition*, September 2015. <https://www.netl.doe.gov/research/coal/carbon-storage/atlasv>.

<sup>322</sup> *Ibid.*

<sup>323</sup> U.S. Geological Survey Geologic Carbon Dioxide Storage Resources Assessment Team, National assessment of geologic carbon dioxide storage resources—Summary: U.S. Geological Survey Factsheet 2013–3020. 2013. <https://pubs.usgs.gov/fs/2013/3020/>.

<sup>324</sup> Alaska has deep saline formation storage capacity, geology amenable to EOR operations, and potential geologic sequestration capacity in unmineable coal seams.

<sup>325</sup> The U.S. DOE NETL Carbon Storage Atlas, Fifth Edition did not assess deep saline formation potential for Alaska, Connecticut, Hawaii, Maine, Massachusetts, Nevada, New Hampshire, Rhode Island, and Vermont. We are assuming for purposes of our analysis here that they do not have storage potential in this type of formation.



already exists for CO<sub>2</sub> transportation and storage.<sup>331</sup> Other types of geologic formations such as organic rich shale and basalt may also have the ability to store CO<sub>2</sub>, and DOE is continuing to evaluate their potential sequestration capacity and efficacy.<sup>332</sup>

The EPA performed a geographic availability analysis in which the Agency examined areas of the country with sequestration potential in deep saline formations, unmineable coal seams, and oil and gas reservoirs; information on existing and probable, planned or under study CO<sub>2</sub> pipelines; and areas within a 100-kilometer (km) (62-mile) area of locations with sequestration potential. The distance of 100 km is consistent with the assumptions underlying the NETL cost estimates for transporting CO<sub>2</sub> by pipeline.<sup>333</sup> Overall, the EPA found that there are 43 States containing areas within 100 km from currently assessed onshore or offshore storage resources in deep saline formations, unmineable coal seams, and depleted oil and gas reservoirs. There are additional areas that have not yet been assessed and may provide additional infrastructure capability.<sup>334</sup>

As described in the 2015 NSPS, electricity demand in States that may not have geologic sequestration sites may be served by new generation, including new base load combustion turbines, built in nearby areas with geologic sequestration, and this electricity can be delivered through

<sup>331</sup> Intergovernmental Panel on Climate Change. (2005). Special Report on Carbon Dioxide Capture and Storage.

<sup>332</sup> Goodman, A., et al. "Methodology for Assessing CO<sub>2</sub> Storage Potential of Organic-Rich Shale Formations." *Energy Procedia*, 12th International Conference on Greenhouse Gas Control Technologies, GHGT-12, 63 (2014): 5178–84. <https://doi.org/10.1016/j.egypro.2014.11.548>. NETL DOE. "Big Sky Carbon Sequestration Partnership." <https://netl.doe.gov/coal/carbon-storage/atlas/bcscsp>. Schaefer, T., and McGrail, P. "Sequestration of CO<sub>2</sub> in Basalt Formations." Pacific Northwest National Laboratory, NETL, DOE, 2013. <https://www.netl.doe.gov/sites/default/files/event-proceedings/2013/carbon%20storage/8-00-Schaefer-58159-Task-1-082213.pdf>.

<sup>333</sup> Although a 100 km pipeline is used in this analysis, this does not represent a technical limitation, but rather a standardization used for NETL cost estimates. As noted in the *GHG Mitigation Measures for Steam Generating Units* TSD, large pipelines connect CO<sub>2</sub> sources in south central Colorado, northeast New Mexico, and Mississippi to Texas, Oklahoma, New Mexico, Utah, and Louisiana. Additionally, as noted in section VII.F.3.b.iii.(5) of this preamble, CO<sub>2</sub> can be transported via other modes such as ship, road tanker, or rail tank cars.

<sup>334</sup> *GHG Mitigation Measures for Steam Generating Units* TSD, chapter 4.6.2. As discussed in the TSD, geologic sequestration potential has not yet been assessed for Connecticut, Hawaii, Nevada, New Hampshire, Rhode Island, and Vermont, and may provide additional infrastructure capability.

transmission lines.<sup>335</sup> This approach has long been used in the electricity sector because siting an EGU away from a load center and transmitting the generation long distances to the load area can be less expensive and easier to permit than siting the EGU near the load area.

In many of the areas without reasonable access to geologic sequestration, utilities, electric cooperatives, and municipalities have a history of joint ownership of electricity generation outside the region or contracting with electricity generation in outside areas to meet demand. Some of the areas are in Regional Transmission Organizations (RTOs),<sup>336</sup> which engage in planning as well as balancing supply and demand in real time throughout the RTO's territory. Accordingly, generating resources in one part of the RTO can serve load in other parts of the RTO, as well as load outside of the RTO. For example, the Prairie State Generating Plant, a 1,600-MW coal-fired EGU in Illinois that is currently considering retrofitting with CCS, serves load in eight different States from the Midwest to the mid-Atlantic.<sup>337</sup> The Intermountain Power Project, a coal-fired plant located in Delta, Utah, that is converting to burn hydrogen and natural gas, serves customers in both Utah and California.<sup>338</sup>

#### (B) Costs

The EPA has evaluated the costs of CCS for new combined cycle units, including the cost of installing and operating CO<sub>2</sub> capture equipment as well as the costs of transport and storage. The EPA has also compared the costs of CCS for new combined cycle units to other control costs, in part derived from other rulemakings that the EPA has determined to be cost reasonable, and the costs are comparable. Based on these analyses, the EPA is proposing that the costs of CCS for new combined cycle units are reasonable. Certain elements of the transport and storage costs are similar for new combustion turbines and existing steam generating units. In this section, the EPA outlines these costs and identifies the considerations specific to new combustion turbines. These costs are significantly reduced by the IRC section 45Q tax credit. For additional details on the EPA's CCS

<sup>335</sup> This was described as "coal-by-wire" in the 2015 NSPS.

<sup>336</sup> In this discussion, the term RTO indicates both ISOs and RTOs.

<sup>337</sup> <https://prairiestateenergycampus.com/about/ownership/>.

<sup>338</sup> <https://www.ipautah.com/participants-services-area/>.

costing analysis see the *GHG Mitigation Measures for Steam Generating Units* TSD, which is available in the rulemaking docket.

#### (1) Capture Costs

According to the NETL Fossil Energy Baseline Report (October 2022 revision), before accounting for the IRC section 45Q tax credit for sequestered CO<sub>2</sub>, using a 90 percent capture amine-based post-combustion CO<sub>2</sub> capture system increases the capital costs of a new combined cycle EGU by 115 percent on a \$/kW basis, increases the heat rate by 13 percent, increases incremental operating costs by 35 percent, and derates the unit (*i.e.*, decreases the capacity available to generate useful output) by 11 percent.<sup>339</sup> For a base load combustion turbine, carbon capture increases the LCOE by 61 percent (an increase of 27 \$/MWh) and has an estimated cost of \$81/ton (\$89/metric ton) of onsite CO<sub>2</sub> reduction.<sup>340</sup> The NETL costs are based on the use of a second generation amine-based capture system without exhaust gas recirculation (EGR) and does not take into account further cost reductions that can be expected to occur as post-combustion capture systems are more widely deployed.

The flue gas from NGCC EGUs differs from that of a coal-fired EGUs in several ways that impact the cost of CO<sub>2</sub> capture. These include that the CO<sub>2</sub> concentration is approximately one-third, the volumetric flow rate on a per MW basis is larger, and the oxygen concentration is approximately 3 times that of a coal-fired EGU. The higher amount of excess oxygen has the potential to reduce the efficiency of amine-based solvents that are susceptible to oxidation. Other important factors include that the lower concentrations of CO<sub>2</sub> reduce the efficiency of the capture process and that the larger volumetric flow rates require a larger CO<sub>2</sub> absorber, which increases the capital cost of the capture process. Exhaust gas recirculation (EGR), also referred to as flue gas recirculation (FGR), is a process that addresses all of these issues. EGR diverts some of the combustion turbine exhaust gas back into the inlet stream for the combustion turbine. Doing so increases the CO<sub>2</sub> concentration and decreases the O<sub>2</sub> concentration in the

<sup>339</sup> CCS reduced the net output of the NETL F class combined cycle EGU from 726 MW to 645 MW.

<sup>340</sup> These calculations use a service life of 30 years, an interest rate of 7.0 percent, a natural gas price of \$3.69/MMBtu, and a capacity factor of 65 percent. These costs do not include CO<sub>2</sub> transport, storage, or monitoring costs.

exhaust stream and decreases the flow rate, producing more favorable conditions for CCS. One study found that EGR can decrease the capital costs of a combined cycle EGU with CCS by 6.4 percent, decrease the heat rate by 2.5 percent, decrease the LCOE by 3.4 percent, and decrease the overall CO<sub>2</sub> capture costs by 11 percent relative to a combined cycle EGU without EGR.<sup>341</sup>

Furthermore, the EPA expects that the costs of capture systems will also decrease over the rest of this decade and continue to decrease afterwards. As part of the plan to reduce the costs of CO<sub>2</sub> capture, the DOE is funding multiple projects to advance CCS technology.<sup>342</sup> It should be noted that these projects are EPAAct05-assisted. The EPA proposes that the rest of the information it has is sufficient to support a determination that the costs of capture systems are reasonable, and that CCS is adequately demonstrated. These EPAAct05-assisted projects provide additional confirmation for this proposal because they will contribute to improvements in the costs of CCS. These include projects falling under carbon capture research and development, engineering-scale testing of carbon capture technologies, and engineering design studies for carbon capture systems. The projects will aim to capture CO<sub>2</sub> from various point sources, including NGCC units, cement manufacturing plants, and iron and steel plants. The general aim is to reach 95 percent or greater capture of CO<sub>2</sub>, to lower the costs of the technologies, and to prove feasible scalability at the industrial scale for these new technologies. Some projects are designed solely to develop new carbon capture technologies, while others are designed to apply existing technologies at the industrial scale. For a list of notable projects, see section VII.F.3.b.iii(A)(4)(b) of this preamble.

Although current post-combustion CO<sub>2</sub> capture projects have primarily been based on amine capture systems, there are multiple alternate capture technologies in development—many of which are funded through industry research programs—that could have

reductions in capital, operating, and auxiliary power requirements and could reduce the cost of capture significantly or improve performance. More specifically, post combustion carbon capture systems generally fall into one of several categories: solvents, sorbents, membranes, cryogenic, and molten carbonate fuel cells<sup>343</sup> systems. It is expected that as CCS infrastructure increases, technologies from each of these categories will become more economically competitive. For example, advancements in solvents, that are potentially direct substitutes for current amine-solvents, will reduce auxiliary energy requirements and reduce both operating and capital costs, and thereby, increasing the economic competitiveness of CCS.<sup>344</sup> Planned large-scale projects, pilot plants, and research initiatives will also decrease the capital and operating costs of future CCS technologies.

In general, CCS costs have been declining as carbon capture technology advances.<sup>345</sup> While the cost of capture has been largely dependent on the concentration of CO<sub>2</sub> in the gas stream, advancements in varying individual CCS technologies tend to drive down the cost of capture for other CCS technologies. The increase in CCS investment is already driving down the costs of near-future CCS technologies. The Global CCS Institute has tracked publicly available information on previously studied, executed, and proposed CO<sub>2</sub> capture projects.<sup>346</sup> The cost of CO<sub>2</sub> capture from low-to-medium partial pressure sources such as coal-fired power generation has been trending downward over the past decade, and is projected to fall by 50 percent by 2025 compared to 2010. This is driven by the familiar learning-processes that accompany the deployment of any industrial technology. Studies of the cost of capture and compression of CO<sub>2</sub> from

power stations completed ten years ago averaged around \$95/metric ton (\$2020). Comparable studies completed in 2018/2019 estimated capture and compression costs could fall to approximately \$50/metric ton CO<sub>2</sub> by 2025. Current target pricing for announced projects at coal-fired steam generating units is approximately \$40/metric ton on average, compared to Boundary Dam whose actual costs were reported to be \$105/metric ton, noting that these estimates do not include the impact of the 45Q tax credit as enhanced by the IRA. Additionally, IEA suggests this trend will continue in the future as technology advancements “spill over” into other projects to reduce costs.<sup>347</sup> Policies in the IJIA and IRA are further increasing investment in CCS technology that can accelerate the pace of innovation and deployment.

## (2) CO<sub>2</sub> Transport and Sequestration Costs

NETL’s “Quality Guidelines for Energy System Studies; Carbon Dioxide Transport and Sequestration Costs in NETL Studies” provides an estimation of transport costs based on the CO<sub>2</sub> Transport Cost Model.<sup>348</sup> The CO<sub>2</sub> Transport Cost Model estimates costs for a single point-to-point pipeline. Estimated costs reflect pipeline capital costs, related capital expenditures, and operations and maintenance costs.

NETL’s Quality Guidelines also provide an estimate of sequestration costs. These costs reflect the cost of site screening and evaluation, permitting and construction costs, the cost of injection wells, the cost of injection equipment, operation and maintenance costs, pore volume acquisition expense, and long-term liability protection. Permitting and construction costs also reflect the regulatory requirements of the UIC Class VI program and GHGRP subpart RR for geologic sequestration of CO<sub>2</sub> in deep saline formations. NETL calculates these sequestration costs on the basis of generic plant locations in the Midwest, Texas, North Dakota, and Montana, as described in the NETL energy system studies that utilize the coal found in Illinois, East Texas, Williston, and Powder River basins.<sup>349</sup>

<sup>341</sup> Energy Procedia. (2014). *Impact of exhaust gas recirculation on combustion turbines. Energy and economic analysis of the CO<sub>2</sub> capture from flue gas of combined cycle power plants.* <https://www.sciencedirect.com/science/article/pii/S1876610214001234>.

<sup>342</sup> The DOE has also previously funded FEED studies for NGCC facilities. These include FEED studies at existing NGCC facilities at Panda Energy Fund in Texas, Elk Hills Power Plant in Kern County, California, Deer Park Energy Center in Texas, Delta Energy Center in Pittsburg, California, and utilization of a Piperazine Advanced Stripper (PZAS) process for CO<sub>2</sub> capture conducted by The University of Texas at Austin.

<sup>343</sup> Molten carbonate fuel cells are configured for emissions capture through a process where the flue gas from an EGU is routed through the molten carbonate fuel cell that concentrates the CO<sub>2</sub> as a side reaction during the electric generation process in the fuel cell. FuelCell Energy, Inc. (2018). *SureSource Capture.* <https://www.fuelcellenergy.com/recovery-2/suresource-capture/>.

<sup>344</sup> DOE. *Carbon Capture, Transport, & Storage. Supply Chain Deep Dive Assessment.* February 24, 2022. <https://www.energy.gov/sites/default/files/2022-02/Carbon%20Capture%20Supply%20Chain%20Report%20-%20Final.pdf>.

<sup>345</sup> International Energy Agency (IEA) (2020). *CCUS in Clean Energy Transitions—A new era for CCUS.* <https://www.iea.org/reports/ccus-in-clean-energy-transitions/a-new-era-for-ccus>.

<sup>346</sup> Technology Readiness and Costs of CCS (2021). Global CCS Institute. <https://www.globalccsinstitute.com/wp-content/uploads/2021/03/Technology-Readiness-and-Costs-for-CCS-2021-1.pdf>.

<sup>347</sup> International Energy Agency (IEA) (2020). *CCUS in Clean Energy Transitions—CCUS technology innovation.* <https://www.iea.org/reports/ccus-in-clean-energy-transitions/a-new-era-for-ccus>.

<sup>348</sup> Grant, T., et al. “Quality Guidelines for Energy System Studies; Carbon Dioxide Transport and Storage Costs in NETL Studies.” National Energy Technology Laboratory. 2019. <https://www.netl.doe.gov/energy-analysis/details?id=3743>.

<sup>349</sup> National Energy Technology Laboratory (NETL), “FE/NETL CO<sub>2</sub> Saline Storage Cost Model (2017).” U.S. Department of Energy, DOE/NETL—

There are two primary cost drivers for a CO<sub>2</sub> sequestration project: the rate of injection of the CO<sub>2</sub> into the reservoir and the areal extent of the CO<sub>2</sub> plume in the reservoir. The rate of injection depends, in part, on the thickness of the reservoir and its permeability. Thick, permeable reservoirs provide for better injection and fewer injection wells. The areal extent of the CO<sub>2</sub> plume depends on the sequestration capacity of the reservoir. Thick, porous reservoirs with a good sequestration coefficient will present a small areal extent for the CO<sub>2</sub> plume and have lower testing and monitoring costs. NETL's Quality Guidelines model costs for a given cumulative storage potential.<sup>350</sup>

In addition, provisions in the IIJA and IRA are expected to significantly increase the CO<sub>2</sub> pipeline infrastructure and development of sequestration sites, which, in turn, are expected to result in further cost reductions for the application of CCS at a new combined cycle EGUs. The IIJA establishes a new Carbon Dioxide Transportation Infrastructure Finance and Innovation program to provide direct loans, loan guarantees, and grants to CO<sub>2</sub> infrastructure projects, such as pipelines, rail transport, ships and barges.<sup>351</sup> The IIJA also establishes a new Regional Direct Air Capture Hubs program which includes funds to support four large-scale, regional direct air capture hubs and more broadly support projects that could be developed into a regional or inter-regional network to facilitate sequestration or utilization.<sup>352</sup> DOE is additionally implementing IIJA section 40305 (Carbon Storage Validation and Testing) through its CarbonSAFE initiative, which aims to further development of geographically widespread, commercial-scale, safe storage.<sup>353</sup> The IRA increases and extends the IRC section 45Q tax credit, discussed next.

2018–1871, 30 September 2017. <https://netl.doe.gov/energy-analysis/details?id=2403>.

<sup>350</sup> Details on CO<sub>2</sub> transportation and sequestration costs can be found in the *GHG Mitigation Measures for Steam Generating Units TSD*.

<sup>351</sup> Department of Energy. "Biden-Harris Administration Announces \$2 Billion from Bipartisan Infrastructure Law to Finance Carbon Dioxide Transportation Infrastructure." (2022). <https://www.energy.gov/articles/biden-harris-administration-announces-2-billion-bipartisan-infrastructure-law-finance>.

<sup>352</sup> Department of Energy. "Regional Direct Air Capture Hubs." (2022). <https://www.energy.gov/oced/regional-direct-air-capture-hubs>.

<sup>353</sup> For more information, see the NETL announcement. <https://www.netl.doe.gov/node/12405>.

### (3) IRC Section 45Q Tax Credit

In determining the cost of CCS, the EPA is taking into account the tax credit provided under IRC section 45Q, as revised by the IRA. The tax credit is available at \$85/metric ton (\$77/ton) and offsets a significant portion of the capture, transport, and sequestration costs noted above.

It is reasonable to take the tax credit into account because it reduces the cost of the controls to the source, which has a significant effect on the actual cost of installing and operating CCS. In addition, all sources that install CCS to meet the requirements of these proposals are eligible for the tax credit. The legislative history of the IRA makes clear that Congress was well aware that the EPA may promulgate rulemaking under CAA section 111 based on CCS and explicitly stated that the EPA should consider the tax credit to reduce the costs of CCUS (*i.e.*, CCS). Rep. Frank Pallone, the chair of the House Energy & Commerce Committee, included a statement in the Congressional Record when the House adopted the IRA in which he explained: "The tax credit[] for CCUS . . . included in this Act may also figure into CAA Section 111 GHG regulations for new and existing industrial sources[.] . . . Congress anticipates that EPA may consider CCUS . . . as [a] candidate[] for BSER for electric generating plants . . . . Further, Congress anticipates that EPA may consider the impact of the CCUS . . . tax credit[] in lowering the costs of [that] measure[]." 168 Cong. Rec. E879 (August 26, 2022) (statement of Rep. Frank Pallone).

In the 2015 NSPS, in which the EPA determined partial CCS to be the BSER for GHGs from new coal-fired steam generating EGUs, the EPA recognized that the IRC section 45Q tax credit or other tax incentives could factor into the cost of the controls to the sources. Specifically, the EPA calculated the cost of partial CCS on the basis of cost calculations from NETL, which included "a range of assumptions including the projected capital costs, the cost of financing the project, the fixed and variable O&M costs, the projected fuel costs, and incorporation of any incentives such as tax credits or favorable financing that may be available to the project developer." 80 FR 64570 (October 23, 2015).<sup>354</sup>

Similarly, in the 2015 NSPS, the EPA also recognized that revenues from

<sup>354</sup> In fact, because of limits on the availability of the IRC section 45Q tax credit at the time of the 2015 NSPS, the EPA did not factor it into the cost calculation for partial CCS. 80 FR 64558–64 (October 23, 2015).

utilizing captured CO<sub>2</sub> for EOR would reduce the cost of CCS to the sources, although the EPA did not account for potential EOR revenues for purposes of determining the BSER. *Id.* at 64563–64. In other rules, the EPA has considered revenues from sale of the by-products of emission controls to affect the costs of the emission controls. For example, in the 2016 Oil and Gas Methane Rule, the EPA determined that certain control requirements would reduce natural gas leaks and therefore result in the collection of recovered natural gas that could be sold; and the EPA further determined that revenues from the sale of the recovered natural gas reduces the cost of controls. See 81 FR 35824 (June 3, 2016). In a 2011 action concerning a regional haze SIP, the EPA recognized that a NO<sub>x</sub> control would alter the chemical composition of fly ash that the source had previously sold, so that it could no longer be sold; and as a result, the EPA further determined that the cost of the NO<sub>x</sub> control should include the foregone revenues from the fly ash sales. 76 FR 58570, 58603 (September 21, 2011). In the 2016 emission guidelines for landfill gas from municipal solid waste landfills, the EPA reduced the costs of controls by accounting for revenue from the sale of electricity produced from the landfill gas collected through the controls. 81 FR 59276, 19679 (August 29, 2016).

The amount of the IRC section 45Q tax credit that the EPA is taking into account is \$85/metric ton for CO<sub>2</sub> that is captured and geologically stored. This amount is available to the affected source as long as it meets the prevailing wage and apprenticeship requirements of IRC section 45Q(h)(3)–(4). The legislative history to the IRA specifically stated that when the EPA considers CCS as the BSER for GHG emissions from industrial sources in CAA section 111 rulemaking, the EPA should determine the cost of CCS by assuming that the sources would meet those prevailing wage and apprenticeship requirements. 168 Cong. Rec. E879 (August 26, 2022) (statement of Rep. Frank Pallone). If prevailing wage and apprenticeship requirements are not met, the value of the IRC section 45Q tax credit falls to \$17/metric ton. The substantially higher credit available provides a considerable incentive to meeting the prevailing wage and apprenticeship requirements. Therefore, the EPA assumes that investors maximize the value of the IRC section 45Q tax credit at \$85/metric ton by meeting those requirements.

### (4) Total Costs of CCS

In a typical NSPS analysis, the EPA amortizes costs over the expected life of

the affected facility and assumes constant revenue and expenses over that period of time. This analysis is different because the IRC section 45Q tax credits for the sequestration of CO<sub>2</sub> are only available for combustion turbines that commence construction by the end of 2032 and are available for 12 years. The construction timeframe is within the NSPS review cycle, and the EPA has determined that it is appropriate to include the credits as part of the CCS costing analysis. Since the duration of the tax credit is less than the expected life of a new base load combustion turbine, the EPA conducted the costing analysis assuming a 30-year useful life and a separate analysis assuming the capital costs are amortized over a 12-year period. For the 30-year analysis, the EPA used a discount rate of 3.8 percent for the 45Q tax credits to get an effective 30-year value of \$41/ton.

Even considering that the IRC section 45Q tax credits are currently available for only 12 years and would, therefore, only offset costs for a portion of a new NGCC turbine's expected operating life, the current overall CO<sub>2</sub> abatement costs of CCS of a 90 percent capture amine-based post combustion capture system, accounting for the tax credit, are \$44/ton (\$49/metric ton) and the increase in the LCOE is \$15/MWh.<sup>355</sup> These costs assume a stable 30-year operating life, transport, storage, and monitoring costs of \$10/metric ton, and do not include any revenues from sale of the CO<sub>2</sub> following the 12-year period when the IRC section 45Q tax credit is available. An alternate costing approach is to assume all capital costs are amortized during the 12-year period when tax credits are available. These tax credits are a significant source of revenue and would lower the incremental generating costs of the unit. Therefore, under the 12-year costing approach the EPA increased the assumed annual capacity factor from 65 to 75 percent. The 12-year CO<sub>2</sub> abatement costs are \$19/ton (\$21/metric ton) and the increase in the LCOE is \$6/MWh. These costs are for a combined cycle unit with a base load rating of 4,600 MMBtu/h with an output of approximately 700 MW.<sup>356</sup> These costs could be higher for small units and lower for larger units. For additional details on the CCS costing analysis see

<sup>355</sup> The EPA used 3.76 percent discount factor to levelized the 45Q tax credits to an annual value of \$45.4/metric ton. These calculations use a service life of 30 years, an interest rate of 7.0 percent, a natural gas price of \$3.69/MMBtu, a capacity factor of 65 percent, and a transport, storage, and monitoring cost of \$10/metric ton.

<sup>356</sup> The output of the model combined cycle EGU without CCS is 726 MW. The auxiliary load of CCS reduces the net out to 645 MW.

the *GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines* TSD, which is available in the rulemaking docket. The EPA is soliciting comment on whether the CCS transport, storage, and monitoring costs are appropriate for determining the BSER costs for combustion turbines.

#### (5) Comparison to Other Costs of Controls

In assessing cost reasonableness for the BSER determination for this rule, the EPA compares the costs of GHG control measures to control costs that the EPA has previously determined to be reasonable. This includes comparison to the costs of controls at EGUs for other air pollutants, such as SO<sub>2</sub> and NO<sub>x</sub>, and costs of controls for GHGs in other industries. The costs presented in this section of the preamble are in 2019 dollars.<sup>357</sup>

At different times, many coal-fired steam generating units have been required to install and operate flue gas desulfurization (FGD) equipment—that is, wet or dry scrubbers—to reduce their SO<sub>2</sub> emissions or SCR to reduce their NO<sub>x</sub> emissions. The EPA compares these control costs across technologies—steam generating units and combustion turbines—because these costs are indicative of what is reasonable for the power sector in general. The fact that EPA required these controls in prior rules, and that many EGUs subsequently installed and operated these controls, provide evidence that these costs are reasonable, and as a result, the cost of these controls provides a benchmark to assess the reasonableness of the costs of the controls in this preamble. In the 2011 Cross-State Air Pollution Rule (CSAPR) (76 FR 48208; August 8, 2011), the EPA estimated the annualized costs to install and operate wet FGD retrofits on existing coal-fired steam generating units. Using those same cost equations and assumptions (*i.e.*, a 63 percent annual capacity factor—the average value in 2011) for retrofitting wet FGD on a representative 700 to 300 MW coal-fired steam generating unit results in annualized costs of \$14.80 to \$18.50/MWh of generation, respectively.<sup>358</sup> In the March 15, 2023 Good Neighbor Plan for the 2015 Ozone NAAQs (2023 GNP),

<sup>357</sup> The EPA used the NETL Baseline Report costs directly for the combustion turbine model plant BSER analysis. Even though these costs are in 2018 dollars, the adjustment to 2019 dollars (1.018 using the U.S. GDP Implicit Price Deflator) is well within the uncertainty range of the report and the minor adjustment would not impact the EPA's BSER determination.

<sup>358</sup> For additional details, see <https://www.epa.gov/power-sector-modeling/documentation-integrated-planning-model-ipm-base-case-v410>.

the EPA estimated the annualized costs to install and operate SCR retrofits on existing coal-fired steam generating units. Using those same cost equations and assumptions (including a 56 percent annual capacity factor—a representative value in that rulemaking) to retrofit SCR on a representative 700 to 300 MW coal-fired steam generating unit results in annualized costs of \$10.60 to \$11.80/MWh of generation, respectively.<sup>359</sup> Finally, using current cost equations and assumptions (including a 50 percent annual capacity factor, and otherwise consistent with the 2023 GNP) for retrofitting wet FGD on a representative 700 to 300 MW coal-fired steam generating unit results in annualized costs of \$23.20 to \$29.00/MWh of generation, respectively.<sup>360</sup>

Finally, the EPA compares costs to the costs for GHG controls in rulemakings for other industries. In the 2016 NSPS regulating GHGs for the Crude Oil and Natural Gas source category, the EPA found the costs of reducing methane emissions of \$2,447/ton to be reasonable (80 FR 56627; September 18, 2015).<sup>361</sup> Converted to a ton of CO<sub>2</sub>e reduced basis, those costs are expressed as \$98/ton of CO<sub>2</sub>e reduced.<sup>362</sup>

The costs for CCS applied to a representative new base load stationary combustion turbine EGU are generally lower than the above-described costs, which supports the EPA's view that the CCS costs are reasonable. The CCS costs range from \$6 to \$15/MWh of generation or \$19 to \$44/ton of CO<sub>2</sub> reduced (depending on the amortization period).

#### (C) Non-Air Quality Health and Environmental Impact and Energy Requirements

In this section of the preamble, the EPA explains that it does not expect the use of CCS for new combined cycle combustion turbines to have unreasonable adverse consequences related to non-air quality health and environmental impact and energy requirements to combined cycle combustion turbines. The EPA first discusses energy requirements, and then considers non-GHG emissions impacts

<sup>359</sup> For additional details, see [https://www.epa.gov/system/files/documents/2023-01/Updated%20Summer%202021%20Reference%20Case%20Incremental%20Documentation%20for%20the%202015%20Ozone%20NAAQS%20Actions\\_0.pdf](https://www.epa.gov/system/files/documents/2023-01/Updated%20Summer%202021%20Reference%20Case%20Incremental%20Documentation%20for%20the%202015%20Ozone%20NAAQS%20Actions_0.pdf).

<sup>360</sup> *Ibid.*

<sup>361</sup> The EPA finalized the 2016 NSPS GHGs for the Crude Oil and Natural Gas source category at 81 FR 35824 (June 3, 2016). The EPA included cost information in the proposed rulemaking, at 80 FR 56627 (September 18, 2015).

<sup>362</sup> Based on the 100-year global warming potential for methane of 25 used in the GHGRP (40 CFR 98 Subpart A, Table A-1).

and water use impacts, resulting from the capture, transport, and sequestration of CO<sub>2</sub>.

With respect to energy requirements, including a 90 percent or greater carbon capture system in the design of a new NGCC will increase the parasitic/auxiliary energy demand and reduce its net power output. A utility that wants to construct an NGCC unit to provide 500 MWe-net of power could build a 500 MWe-net plant knowing that it will be de-rated by 11 percent (to a 444 MWe-net plant) with the installation and operation of CCS. In the alternative, the project developer could build a larger 563 MWe-net NGCC plant knowing that, with the installation of the carbon capture system, the unit will still be able to provide 500 MWe-net of power to the grid. Although the use of CCS imposes additional energy demands on the affected units, those units are able to accommodate those demands by scaling larger, as needed.

Regardless of whether a unit is scaled larger, the installation and operation of CCS itself does not impact the unit's potential-to-emit any of the criteria or hazardous air pollutants. In other words, a new base load stationary combustion turbine EGU constructed using highly efficient generation (the first component of the BSER) would not see an increase in emissions of criteria or hazardous air pollutants as a direct result of installing and using 90 percent or greater CO<sub>2</sub> capture CCS to meet the second phase standard of performance.<sup>363</sup>

Scaling a unit larger to provide heat and power to the CO<sub>2</sub> capture equipment would have the potential to increase non-GHG air emissions. However, most of them would be mitigated or adequately controlled by equipment needed to meet other CAA requirements. In general, the emission rates and flue gas concentrations of most non-GHG pollutants from the combustion of natural gas in stationary combustion turbines are relatively low compared to the combustion of oil or coal in boilers. As such, it is not necessary to use an FGD to pretreat the flue gas prior to CO<sub>2</sub> removal in the CO<sub>2</sub> scrubber column. The sulfur content of natural gas is low relative to oil or coal and resulting SO<sub>2</sub> emissions are therefore also relatively low. Similarly, PM emissions from combustion of natural gas in a combustion turbine are relatively low. Furthermore, the high combustion efficiency of combustion

turbines results in relatively low organic-HAP emissions, and there are likely few, if any, metallic-HAP emissions from combustion of natural gas. Additionally, combustion turbines at major sources of HAP are subject to the stationary combustion turbine NESHAP, which includes limits for formaldehyde emissions for new sources that may require installation of an oxidation catalyst (87 FR 13183; March 9, 2022). Regarding NO<sub>x</sub> emissions, in most cases, the combustion turbines in new combined cycle units will be equipped with low-NO<sub>x</sub> burners to control flame temperature and reduce NO<sub>x</sub> formation. Additionally, new combined cycle units may be subject to major NSR requirements for NO<sub>x</sub> emissions, which may necessitate the installation of SCR to comply with a control technology determination by the permitting authority. See section XIII.A of this preamble for additional details regarding implications for the NSR program. Although NO<sub>x</sub> concentrations may be controlled by SCR, for some amine solvents NO<sub>x</sub> in the post-combustion flue gas can react in the CO<sub>2</sub> scrubber to form nitrosamines. A conventional multistage water wash or acid wash and a mist eliminator at the exit of the CO<sub>2</sub> scrubber is effective at removal of gaseous amine and amine degradation products (e.g., nitrosamine) emissions.<sup>364 365</sup>

Stakeholders have shared with the EPA concerns about the safety of CCS projects and that historically disadvantaged and overburdened communities may bear a disproportionate environmental burden associated with CCS projects.<sup>366</sup> For the reasons noted above, the EPA does not expect CCS projects to result in uncontrolled or substantial increases in emissions of non-GHG air pollutants from new combustion turbines. The EPA is committed to working with its fellow agencies to foster meaningful

<sup>364</sup> Sharma, S., Azzi, M., "A critical review of existing strategies for emission control in the monoethanolamine-based carbon capture process and some recommendations for improved strategies," *Fuel*, 121, 178 (2014).

<sup>365</sup> Mertens, J., et al., "Understanding ethanalamine (MEA) and ammonia emissions from amine-based post combustion carbon capture: Lessons learned from field tests," *Int'l J. of GHG Control*, 13, 72 (2013).

<sup>366</sup> In outreach with potentially vulnerable communities, residents have voiced two primary concerns. First, there is the concern that their communities have experienced historically disproportionate burdens from the environmental impacts of energy production, and second, that as the sector evolves to use new technologies such as CCS and hydrogen, they may continue to face disproportionate burden. This is discussed further in section XIV.E of this preamble.

engagement with communities and protect communities from pollution. This can be facilitated through the existing detailed regulatory framework for CCS projects and further supported through robust and meaningful public engagement early in the technological deployment process. Furthermore, the EPA is soliciting comment on additional ways that may be identified to responsibly advance the deployment of CCS and ensure meaningful engagement with local communities.

The use of water for cooling presents an additional issue. Due to their relatively high efficiency, combined cycle EGUs have relatively small cooling requirements compared to other base load EGUs. According to NETL, a combined cycle EGU without CCS requires 190 gallons of cooling water per MWh of electricity. CCS increases the cooling water requirements due both to the decreased efficiency and the cooling requirements for the CCS process to 290 gallons per MWh, an increase of about 50 percent. However, because NGCC units require limited amounts of cooling water, the absolute amount of increase in cooling water required due to use of CCS does not present unsurmountable concerns. In addition, many combined cycle EGUs currently use dry cooling technologies and the use of dry or hybrid cooling technologies for the CO<sub>2</sub> capture process would reduce the need for additional cooling water. Therefore, the EPA is proposing that the additional cooling water requirements from CCS are reasonable.

As noted in section VII.F.3 of this preamble, PHMSA oversight of supercritical CO<sub>2</sub> pipeline safety protects against environmental release during transport and UIC Class VI regulations under the SDWA in tandem with GHGRP requirements ensure the protection of USDWs and the security of geologic sequestration.

#### (D) Impacts on the Energy Sector

The EPA does not believe that determining CCS to be BSER for base load units will cause reliability concerns, for two independent reasons. First, the EPA is proposing that the costs of CCS are reasonable and comparable to other controls the electric power industry has used without significant effects on reliability. Second, while CCS is adequately demonstrated and cost reasonable, the current proposal allows companies that want to build a base load combined cycle combustion turbine a second pathway to meet its requirements: building a unit that co-fires low-GHG hydrogen in the appropriate amount. In fact, companies are pursuing both of these options,

<sup>363</sup> While the absolute onsite mass emissions would not increase from the second component of the BSER, the emissions rate on a lb/MWh-net basis would increase by 13 percent.

including units with CCS, in various stages of development. The EPA also expects there to be considerable interest in building intermediate load and peaker units to meet market demand for dispatchable generation. Indeed, the portion of the combustion turbine fleet that is operating at base load is declining as shown in the EPA's reference case modeling (post-IRA 2022 reference case, see section IV.F of the preamble). Finally, combined cycle units are only one of many options that companies have to build new generation. For instance, in 2023, combined cycle units are only expected to represent 14 percent of all new generating capacity built in the US and only a portion of that is natural gas combined cycle capacity.<sup>367</sup> Finally, several companies have recently announced plans to move away from new combined cycle projects in favor of more non-base load combustion turbines, renewables, and battery storage. For example, Xcel recently announced plans to build new renewable power generation instead of the combined cycle plant it had initially proposed to replace the retiring Sherco coal-fired plant.<sup>368</sup> For these reasons, determining CCS to be the BSER for base load units will not cause reliability concerns.

#### (E) Extent of Reductions in CO<sub>2</sub> Emissions

Designating CCS as a component of the BSER for certain base load combustion turbine EGUs prevents large amounts of CO<sub>2</sub> emissions. For example, a new base load combined cycle EGU without CCS could be expected to emit 45 million tons of CO<sub>2</sub> over its operating life. Use of CCS would avoid the release of nearly 41 million tons of CO<sub>2</sub> over the operating life of the combined cycle EGU. However, due to the auxiliary/parasitic energy requirements of the carbon capture system, capturing 90 percent of the CO<sub>2</sub> does not result in a corresponding 90 percent reduction in CO<sub>2</sub> emissions. According to the NETL baseline report, adding a 90 percent CO<sub>2</sub> capture system increases the EGU's gross heat rate by 7 percent and the unit's net heat rate by 13 percent. Since more fuel would be consumed in the CCS case, the gross and net emissions rates are reduced by 89.3 percent and 88.7 percent respectively.

<sup>367</sup> <https://www.eia.gov/todayinenergy/detail.php?id=55419>.

<sup>368</sup> <https://cubminnesota.org/xcel-is-no-longer-pursuing-gas-power-plant-proposes-more-renewable-power/>.

#### (F) Promotion of the Development and Implementation of Technology

The EPA also considered whether determining CCS to be a component of the BSER for new base load combustion turbines will advance the technological development of CCS and concluded that this factor supports our BSER determination. A standard of performance based on highly efficient generation in combination with the use of CCS—combined with the availability of 45Q tax credits and investments in supporting CCS infrastructure from the IJA—should incentivize additional use of CCS, which should incentivize cost reductions through the development and use of better performing solvents or sorbents. While solvent-based CO<sub>2</sub> capture has been adequately demonstrated at the commercial scale, a determination that a component of the BSER for new base load stationary combustion turbine (and long term coal-fired steam generating units) is the use of CCS will also likely incentivize the deployment of alternative CO<sub>2</sub> capture techniques at scale. Moreover, as noted above, the cost of CCS has fallen in recent years and is expected to continue to fall; and further implementation of the technology can be expected to lead to additional cost reductions, due to added experience and cost efficiencies through scaling.

The experience gained by utilizing CCS with stationary combustion turbine EGUs, with their lower CO<sub>2</sub> flue gas concentration relative to other industrial sources such as coal-fired EGUs, will advance capture technology with other lower CO<sub>2</sub> concentration sources. The EIA 2023 Annual Energy Outlook projects that almost 862 billion kWh of electricity will be generated from natural gas-fired sources in 2040.<sup>369</sup> Much of that generation is projected to come from existing combined cycle EGUs and further development of carbon capture technologies could facilitate increased retrofitting of those EGUs.

#### (G) Proposed BSER

The Agency proposes that for new natural gas-fired base load combustion turbines, an efficient stationary combined cycle combustion turbine utilizing CCS at a capture rate of 90 percent, beginning in 2035, qualifies as the BSER because it is adequately demonstrated; it entails reasonable costs taking account of the IRC section 45Q tax credit, it achieves significant emission reductions, and it does not have significant adverse non-air quality

<sup>369</sup> Does not include 114 billion kilowatt hours from natural gas-fired CHP projected in AEO 2023.

health or environmental impacts or significant adverse energy requirements, including on a nationwide basis. The fact that it promotes useful technology provides additional, although not essential, support for this proposal.

#### iv. Low-GHG Hydrogen

As discussed, the EPA is proposing two BSER pathways that new stationary combustion turbines may take—one that is based on the use of 90 percent CCS and a separate BSER pathway based upon co-firing low-GHG hydrogen. In this section, the EPA explains why it believes that CCS could form the basis of the BSER. In section VII.F.3.c, we discuss why we believe burning low-GHG hydrogen could also form the basis of the BSER.

#### v. Basis for Proposal of a Second Component of BSER, Based on CCS, in 2035

When considering whether a technology should be BSER, the EPA must consider both unit level and nationwide questions. At the unit level, the EPA must ask whether the technology is proven, can be implemented at reasonable cost, and achieves emission reductions without causing other significant environmental or energy issues. With regard to CCS at the unit level, the EPA believes there is ample evidence to conclude that it is available and cost reasonable (with the 45Q tax credits) today, and that a well-sited individual new unit could meet the standard of performance based on the application of 90 percent CCS on the startup date of the facility. However, when looking at the technology from a nationwide basis, the EPA must take larger system-wide impacts into consideration. For CCS, this includes questions about the development and availability of infrastructure for transportation and storage<sup>370</sup> as well as considerations related to the lead time needed to scale manufacturing and the installation of carbon capture equipment to meet the amount of capacity potentially subject to this proposed BSER (in addition to meeting IRA-driven demand for CCS in other sectors).

The EPA considered establishing the start of phase 2 of the standard of performance as early as 2030 on the assumption that projects that commence construction in the period immediately following this rulemaking will need at least that amount of time to implement the BSER. However, the EPA is also

<sup>370</sup> For further information on timing associated with CO<sub>2</sub> transport and storage design, engineering, and construction, see *GHG Mitigation Measures for Steam Generating Units* TSD, chapter 4.7.1.

proposing to determine that the BSER for long-term coal-fired steam generating units (those that will be in operation beyond 2040) is the use of 90 percent capture CCS and that the associated standard of performance for those units is effective beginning in 2030. The EPA is also aware that a significant number of new base load combined cycle stationary combustion turbines are projected to be constructed by 2030, and that there are other, non-power sector industries that will also be pursuing implementation of CCS in that timeframe. The EPA believes that while CCS poses low supply chain risk due to the required infrastructure relying on common and readily available raw materials and CCS infrastructure can be supplied in large part by domestic components,<sup>371</sup> the deployment of CCS infrastructure, including the demand for the manufacturing and installation of CCS equipment and CO<sub>2</sub> pipeline infrastructure, and the demand for conducting sequestration site characterization and permitting, should be prioritized for the higher GHG-emitting fleet of existing long-term coal-fired steam generating units. The EPA also understands that many utilities and power generating companies are trying to assess their near-term and long-term base load generating needs and may have useful information to provide to the record that would help to assess the demand for CCS. Therefore, in consideration of these factors, the EPA is proposing that phase 2 of the standard of performance begin in 2035 to ensure achievability of the standard. The EPA also recognizes that commenters may have more information about implementing CCS on a broader scale that would help to assess whether 2030 or 2035 (or somewhere in between) would be an appropriate start date for phase 2 of the standards of performance that are based, in part, on the use of CCS. For this reason, the EPA solicits comment on whether the compliance date for phase 2 of the standards of performance should begin earlier than 2035, including as early as 2030.

**c. BSER for Base Load Subcategory of Combustion Turbines Adopting the Low-GHG Hydrogen Co-Firing Pathway and Intermediate Load Subcategory—Second and Third Components**

This section describes the second and third components of the EPA's proposed BSER for the subcategory of base load

combustion turbines that are adopting the low-GHG hydrogen co-firing pathway and the second component for combustion turbines in the intermediate load subcategory. For both subcategories, the EPA is proposing that the second component of the BSER is co-firing 30 percent (by volume) low-GHG hydrogen and that sources meet a corresponding standard of performance beginning in 2032. For base load combustion turbines in this subcategory of sources that adopt the low-GHG hydrogen co-firing pathway, the EPA is proposing that the third component of the BSER is co-firing 96 percent (by volume) low-GHG hydrogen and that sources meet a corresponding standard of performance beginning in 2038. The EPA is also soliciting comment on whether, in lieu of providing a subcategory for base load combustion turbines that adopt the low-GHG hydrogen co-firing pathway, a single BSER for base load combustion turbines should be selected based on application of CCS with 90 percent capture—which could also be met by co-firing 96 percent (by volume) low-GHG hydrogen. The first part of this section is a background discussion concerning several key aspects of the hydrogen industry as it is currently developing. At the outset, the EPA summarizes the activities of some power producers and turbine manufacturers to develop and demonstrate hydrogen co-firing as a viable decarbonization technology for the power sector. The EPA then discusses the GHG emissions performance of stationary combustion turbines when hydrogen is used as a fuel. This discussion includes the different methods of production and the associated GHG emissions for each. The second part of this section describes the proposed second component of the BSER, which is co-firing 30 percent (by volume) low-GHG hydrogen and the third component of the BSER, which, for certain units, is co-firing 96 percent (by volume) low-GHG hydrogen.

The EPA is also proposing a definition of low-GHG hydrogen. The EPA is proposing that hydrogen qualifies as low-GHG hydrogen if it is produced through a process that results in a GHG emission rate of less than 0.45 kilograms of CO<sub>2</sub> equivalent per kilogram of hydrogen (kg CO<sub>2</sub>e/kg H<sub>2</sub>) on a well-to-gate basis consistent with the system boundary established in IRC section 45V (Credit for Production of Clean Hydrogen) of the IRA. Hydrogen produced by electrolysis (splitting water into hydrogen and oxygen) using non-emitting energy sources such as solar, wind, nuclear, and hydroelectric power,

can produce hydrogen with carbon intensities lower than 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub>, which could qualify as low-GHG hydrogen for the purposes of this proposed BSER.<sup>372</sup> However, the EPA is also soliciting comment on whether a specific definition of low-GHG hydrogen should be included in the final rule. The third part of this section explains why the EPA proposes that co-firing 30 percent (by volume) low-GHG hydrogen qualifies as a component of the BSER. Co-firing 30 percent (by volume) hydrogen is technically feasible and well-demonstrated in new combustion turbines, it will be supported by an adequate supply of hydrogen by 2032, it will be of reasonable cost, it will ensure reductions of GHG emissions, and it will be consistent with the other BSER factors. The EPA also includes in this section an explanation of why the Agency thinks that highly efficient generating technology combined with co-firing only low-GHG hydrogen is the “best” system of emission reduction, taking into account the statutory considerations. This third part of this section also explains why the EPA proposes that co-firing 96 percent (by volume) low-GHG hydrogen qualifies as a third component of the BSER for base load combustion turbines that are subject to a second phase standard of performance based on co-firing 30 percent (by volume) low-GHG hydrogen. The EPA proposes that co-firing 96 percent (by volume) low-GHG hydrogen is technically feasible and well-demonstrated in new combustion turbines, it will be supported by an adequate supply of low-GHG hydrogen by 2038, it will be of reasonable cost, it will ensure reductions of GHG emissions, and it will be consistent with the other BSER factors.

**i. Lower Emitting Fuels**

The EPA is not proposing lower emitting fuels as the second component of BSER for base load or intermediate load combustion turbines because it would achieve few emission reductions compared to co-firing low-GHG hydrogen.

**ii. Highly Efficient Generation**

For the reasons described above, the EPA is proposing that highly efficient generation technology in combination with best operating and maintenance practices continues to be a component of the BSER that is reflected in the

<sup>371</sup> U.S. Department of Energy, Achieving American Leadership in the Carbon Capture, Transport, and Storage Supply Chain, March 23, 2022 (DOE/OP-0001-1). <https://www.energy.gov/sites/default/files/2022-03/Carbon%20Capture%20factsheet.pdf>.

<sup>372</sup> U.S. Department of Energy (DOE). Pathways to Commercial Liftoff: Clean Hydrogen, March 2023. <https://www.energy.gov/articles/doe-releases-new-reports-pathways-commercial-liftoff-accelerate-clean-energy-technologies>.



second phase of the standards of performance for base load turbines that are adopting the low-GHG hydrogen co-firing pathway and intermediate load combustion turbines. Highly efficient generation reduces fuel use as well as the absolute amount and cost of low-GHG hydrogen that would be required to comply with the second phase standards.

### iii. CCS

The EPA is not proposing the use of CCS as a component of the BSER for base load turbines combusting that are adopting low-GHG hydrogen co-firing or intermediate load combustion turbines. As described previously, simple cycle technology is the most common combustion turbine technology applicable to the intermediate load subcategory and the Agency is limiting consideration of CCS to base load combined cycle EGUs. Intermediate load combustion turbines tend to start and stop frequently and have relatively short periods of continuous operation. CCS systems could have difficulty starting fast enough to get significant levels of CO<sub>2</sub> capture. The EPA solicits comment on flexible CCS technologies that could be used by intermediate load combustion turbines. In addition, the CCS equipment could essentially remain idle for much of the time while these intermediate units are not running. For these reasons, CCS would be less cost-effective for intermediate load combustion turbine EGUs—particularly at much lower capacity factors—as compared to base load combined cycle units that are not on the pathway to combusting 96 percent (by volume) low-GHG hydrogen.

With respect to base load combustion turbine EGUs, as explained previously, the EPA is proposing two BSER pathways that new base load stationary combustion turbines may take—one that is based on the use of 90 percent CCS and a separate BSER pathway based upon co-firing low-GHG. In this section, the EPA explains why it believes that co-firing with low-GHG hydrogen could form the basis of the BSER. In section VII.C.3.b.iii, we discuss why we believe CCS could also form the basis of the BSER.

### iv. Background Discussion of Hydrogen and the Electric Power Sector, Hydrogen Co-Firing in Combustion Turbines, and Hydrogen Production Processes

Hydrogen in the United States is primarily used for refining petroleum and producing fertilizer, with smaller amounts also used in sectors like metals treatment, processing foods, and

production of specialty chemicals.<sup>373</sup> In recent years, applications of hydrogen have expanded to include co-firing in combustion turbines used to generate electricity. In fact, many models of existing combustion turbines that are used for electricity generation have successfully demonstrated the ability to co-fire blends of 5 to 10 percent hydrogen by volume without modification to the combustion system. Furthermore, combustion of hydrogen blends as high as 20 to 30 percent by volume are being tested and demonstrated; and new turbine designs that can accommodate co-firing much greater percentages of hydrogen are being developed.

Several power producers made financial investments and began work on hydrogen co-firing projects prior to passage of the IRA in August 2022. For example, in early 2021, the Intermountain Power Agency (IPA) project in Utah began the transition away from operating an 1,800-MW coal-fired steam generating unit to an 840-MW combined cycle combustion turbine that will integrate 30 percent by volume hydrogen co-firing at startup in 2025.<sup>374</sup> IPA and its partners have announced plans to produce low-GHG hydrogen via solar-powered electrolysis with storage in underground geologic formations en route to combusting 100 percent low-GHG hydrogen in the combined cycle unit by 2045. IPA also has agreements to sell its electricity to the Los Angeles Department of Water and Power.

Another example is the Long Ridge Energy Generation Project in Ohio.<sup>375</sup> The 485-MW combined cycle combustion turbine became operational in 2021 and is designed to transition to 100 percent hydrogen in the future.<sup>376</sup> The unit successfully co-fired 5 percent by volume hydrogen in March 2022.<sup>377</sup> The planned next step for

<sup>373</sup> U.S. Department of Energy (DOE). National Clean Hydrogen Strategy and Roadmap. September 2022. <https://www.hydrogen.energy.gov/pdfs/clean-hydrogen-strategy-roadmap.pdf>.

<sup>374</sup> Intermountain Power Agency (2022). <https://www.ipautah.com/ipp-renewed/>.

<sup>375</sup> Hering, G. (2021). First major US hydrogen-burning power plant nears completion in Ohio. *S&P Global Market Intelligence*. <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/081221-first-major-us-hydrogen-burning-power-plant-nears-completion-in-ohio>.

<sup>376</sup> McGraw, D. (2021). World science community watching as natural gas-hydrogen power plant comes to Hannibal, Ohio. *Ohio Capital Journal*. <https://ohiocapitaljournal.com/2021/08/27/world-science-community-watching-as-natural-gas-hydrogen-power-plant-comes-to-hannibal-ohio/>.

<sup>377</sup> McGraw, D. (2021). World science community watching as natural gas-hydrogen power plant comes to Hannibal, Ohio. *Ohio Capital Journal*. <https://ohiocapitaljournal.com/2021/08/27/world-science-community-watching-as-natural-gas-hydrogen-power-plant-comes-to-hannibal-ohio/>.

Long Ridge is to co-fire 20 percent by volume hydrogen with the existing turbine design, which has been commercially available since 2017 and can co-fire 15 to 20 percent by volume hydrogen without modification.<sup>379</sup> Furthermore, in June 2022, Southern Company successfully demonstrated the co-firing of a 20 percent by volume hydrogen blend at Georgia Power's Plant McDonough-Atkinson. The co-firing demonstration was performed on a combustion turbine at partial and full loads and produced a 7 percent reduction in CO<sub>2</sub> emissions.<sup>380</sup> In September 2022, the New York Power Authority (NYPA) successfully co-fired a 44 percent by volume blend of hydrogen in a retrofitted combustion turbine. According to the Electric Power Research Institute (EPRI), the project demonstrated a 14 percent reduction in CO<sub>2</sub> at a 35 percent by volume hydrogen blend. The unit's existing SCR controlled NO<sub>x</sub> emissions within permit limits.<sup>381</sup> <sup>382</sup> <sup>383</sup> We note other projects to develop combustion turbines that co-fire hydrogen in section IV.E of this preamble.

Other power producers have implemented large low-GHG hydrogen plans that integrate multiple elements of their generating assets. In Florida, NextEra announced in June 2022 a comprehensive carbon emissions reduction plan that will eventually convert 16 GW of natural gas-fired generation to operate on low-GHG hydrogen as part of the utility's 2045

*science-community-watching-as-natural-gas-hydrogen-power-plant-comes-to-hannibal-ohio/*.

<sup>378</sup> Defrank, Robert (2022). *Cleaner Future in Sight: Long Ridge Energy Terminal in Monroe County Begins Blending Hydrogen*. <https://www.theintelligencer.net/news/community/2022/04/cleaner-future-in-sight-long-ridge-energy-terminal-in-monroe-county-begins-blending-hydrogen>.

<sup>379</sup> Patel, S. (April 22, 2022). First Hydrogen Burn at Long Ridge HA-Class Gas Turbine Marks Triumph for GE. Power. <https://www.powermag.com/ny-pa-ge-successfully-pilot-hydrogen-retrofit-at-aeroderivative-gas-turbine/>.

<sup>380</sup> Patel, S. (2022). Southern Co. Gas-Fired Demonstration Validates 20% Hydrogen Fuel Blend. <https://www.powermag.com/southern-co-gas-fired-demonstration-validates-20-hydrogen-fuel-blend/>.

<sup>381</sup> Palmer, W., & Nelson, B. (2021). *An H<sub>2</sub> Future: GE and New York power authority advancing green hydrogen initiative*. <https://www.ge.com/news/reports/an-h2-future-ge-and-new-york-power-authority-advancing-green-hydrogen-initiative>.

<sup>382</sup> Van Voorhis, S. (2021). New York to test green hydrogen at Long Island power plant. *Utility Dive*. <https://www.utilitydive.com/news/new-york-to-test-green-hydrogen-at-long-island-power-plant/603130/>.

<sup>383</sup> Electric Power Research Institute (EPRI). (2022, September 15). *Hydrogen Co-Firing Demonstration at New York Power Authority's Brentwood Site: GE LM6000 Gas Turbine*. Low Carbon Resources Initiative. <https://www.epri.com/research/products/00000003002025166>.



GHG reduction goal.<sup>384</sup> Also, NextEra's Cavendish NextGen Hydrogen Hub will produce hydrogen with a 25-MW electrolyzer system powered by solar energy and the hydrogen will then be co-fired by combustion turbines at Florida Power and Light's 1.75-GW Okeechobee power plant.<sup>385</sup>

One of the first power producers to invest in hydrogen as a fuel for combustion turbines was Entergy, which reached an agreement with turbine manufacturer Mitsubishi Power in 2020 to develop hydrogen-capable combined cycle facilities that include low-GHG hydrogen production, storage, and transportation components.<sup>386</sup> In October 2022, Entergy and New Fortress Energy announced plans to collaborate on a renewable energy and 120-MW hydrogen production plant in southeast Texas.<sup>387</sup> The partnership includes electricity transmission infrastructure as well as the development of renewable energy resources and the offtake of low-GHG hydrogen. A feature of the agreement is the potential to supply hydrogen to Entergy's Orange County Advanced Power Station, which received approval from the Public Utility Commission of Texas in November 2022.<sup>388</sup> The 1,115-MW power plant will replace end-of-life gas generation with new combined cycle combustion turbines that are ready to co-fire hydrogen with the ability to move to 100 percent hydrogen in the future. Construction will begin in 2023 and the project will be completed in 2026.

Hydrogen offers unique solutions for decarbonization because of its potential to provide dispatchable, clean energy with long-term storage and seasonal capabilities. For example, hydrogen is an energy carrier that can provide long-term storage of low-GHG energy that can be co-fired in combustion turbines and used to balance load with the increasing

volumes of variable generation.<sup>389</sup> These services can enhance the reliability of the power system while facilitating the integration of variable renewable energy resources and supporting decarbonization of the electric grid. Hydrogen has the potential to mitigate curtailment, which is the deliberate reduction of electric output below what could have been produced. Curtailment often occurs when RTOs need to balance the grid's energy supply to meet demand. For example, in 2020, the California Independent System Operator (CAISO) curtailed an estimated 1.5 million MWh of solar generation.<sup>390</sup> Curtailment will likely increase as the capacity of variable generation continues to expand. One technology with the potential to reduce curtailment is energy storage, and some power producers envision a role for hydrogen to supplement natural gas as a fuel to support the balancing and reliability of an increasingly decarbonized electric grid.

Rapid progress is being made, and, due to the demonstrated ability of new and existing combustion turbines to co-fire hydrogen, other utility owners/operators have publicly made long-term commitments to hydrogen co-firing and have identified the technology as a key component of their future operations and GHG reduction strategies. As highlighted by the earlier examples, the outlook expressed by multiple power producers and developers includes a future generation asset mix that retains combustion turbines fired exclusively with hydrogen. Utilities in vertically integrated States and merchant generators in wholesale markets rely on combustion turbines to provide reliable, dispatchable power.

Hydrogen gas released into the atmosphere will also have climate and air quality effects through atmospheric chemical reactions. In particular, hydrogen is known to react with the hydroxyl radical, reducing concentrations of the hydroxyl radical in the atmosphere. Because the hydroxyl radical is important for the destruction of many other gases, a reduction in hydroxyl radical concentrations will lead to increased lifetimes of many other gases—including methane and tropospheric ozone. This means that hydrogen gas emissions can also indirectly contribute

to warming through increasing concentrations of methane and ozone. Hydrogen is not a greenhouse gas as defined by the Framework Convention on Climate Change under the IPCC, and its secondary impacts on warming should mitigate over time as methane emissions are controlled. Even as hydrogen scales and much larger volumes are consumed, with the attendant potential for emissions of hydrogen to oxidize in the atmosphere, we expect the benefits of low-GHG hydrogen as part of a BSER pathway to outweigh any such effects in the future.

#### v. Hydrogen Production Processes and Associated Levels of GHG Emissions

Hydrogen is used in industrial processes, and as discussed previously, in recent years, applications of hydrogen co-firing have expanded to include stationary combustion turbines used to generate electricity. However, at present, nearly all industrial hydrogen is produced via methods that are GHG-intensive. To fully evaluate the potential GHG emission reductions from co-firing low-GHG hydrogen in a combustion turbine EGU, it is important to consider the different processes of producing the hydrogen and the GHG emissions associated with each process. The following discussion highlights the primary methods of hydrogen production as well as the sources of energy used during production and the level of GHG emissions that result from each production method. The varying levels of CO<sub>2</sub> emissions associated with hydrogen production are well-recognized, and stakeholders routinely refer to hydrogen on the basis of the different production processes and their different GHG intensities.<sup>391</sup>

More than 95 percent of the dedicated hydrogen currently produced in the U.S. originates from natural gas using steam methane reforming (SMR). This method produces hydrogen by adding steam and heat to natural gas in the presence of a catalyst. Methane reacts with the steam to produce hydrogen, carbon monoxide (CO), and trace amounts of CO<sub>2</sub>. Further, the CO byproduct is routed to a second process, known as a water-gas shift reaction, to react with more steam to create additional hydrogen and CO<sub>2</sub>. After these processes, the CO<sub>2</sub> is removed from the gas stream, leaving

<sup>384</sup> NextEra Energy (2022). Zero Carbon Blueprint. <https://www.nexteraenergy.com/content/dam/nee/us/en/pdf/NextEraEnergyZeroCarbonBlueprint.pdf>.

<sup>385</sup> Clean Energy Group. *Hydrogen Projects in the U.S.* <https://www.cleaneenergy.org/ceg-projects/hydrogen/projects-in-the-us/>.

<sup>386</sup> Mitsubishi Power Americas. (September 23, 2020). *Mitsubishi Power and Entergy to Collaborate and Help Decarbonize Utilities in Four States.* <https://power.mhi.com/regions/amer/news/20200923.html>.

<sup>387</sup> Entergy. (October 19, 2022). Entergy Texas and New Fortress Energy partner to advance hydrogen economy in Southeast Texas. <https://www.entropynewsroom.com/news/entergy-texas-new-fortress-energy-partner-advance-hydrogen-economy-in-southeast-texas/>.

<sup>388</sup> Entergy. (November 28, 2022). Entergy Texas receives approval to build a cleaner, more reliable power station in Southeast Texas. <https://www.entropynewsroom.com/news/entergy-texas-receives-approval-build-cleaner-more-reliable-power-station-in-southeast-texas/>.

<sup>389</sup> For example, when the sun is not shining and/or the wind is not blowing.

<sup>390</sup> Walton, R. (August 25, 2021). CAISO forced to curtail 15% of California utility-scale solar in March, 5% last year. Power Engineering. <https://www.power-eng.com/solar/caiso-forced-to-curtail-15-of-california-utility-scale-solar-in-march-5-last-year/#gref>.

<sup>391</sup> Some organizations have developed a convention for labeling each hydrogen production method, based on the GHG emissions associated with each method, according to a color scheme. The color labels are insufficiently specific for the purposes of this proposed rule, so the EPA generally does not refer to hydrogen using this color convention.

almost pure hydrogen.<sup>392</sup> CO<sub>2</sub> emissions are generated from the conversion process itself and from the creation of the thermal energy and steam (assuming the boilers are fueled by natural gas) or external energy sources powering the production process. Because the thermal efficiency of SMR of natural gas is generally 80 percent or less,<sup>393</sup> less overall energy is in the produced hydrogen than in the natural gas required to produce the hydrogen. Therefore, the use of hydrogen produced through SMR in a combustion turbine would consume more natural gas than would have been consumed if the combustion turbine had burned the natural gas directly. Therefore, co-firing hydrogen derived from SMR based on fossil fuels without CCS results in higher overall CO<sub>2</sub> emissions than using the natural gas directly in the EGU.

The GHG emissions from hydrogen production via SMR can be controlled with CCS technology at different points in the production process. There are varying levels of CO<sub>2</sub> capture for different techniques, but typically a range of 65 to 90 percent is viable.<sup>394</sup> The autothermal reforming (ATR) of methane is a similar technology to SMR, but ATR utilizes natural gas in the process itself without an external heat source.<sup>395</sup> CCS can also be applied to ATR.

Another process to produce hydrogen is methane pyrolysis. Methane pyrolysis is the thermal decomposition of methane in the absence (or near absence) of oxygen, which produces hydrogen and solid carbon (*i.e.*, carbon black) as the only byproducts. Pyrolysis uses energy to power its hydrogen production process, and therefore the level of its overall GHG emissions depends on the carbon intensity of its energy inputs. For SMR, ATR, and pyrolysis technologies, emissions from methane extraction, production, and transportation are also significant

<sup>392</sup> U.S. Department of Energy (DOE) (n.d.). Hydrogen Production: Natural Gas Reforming. <https://www.energy.gov/eere/fuelells/hydrogen-production-natural-gas-reforming>. For each kg of hydrogen produced through SMR, 4.5 kg of water is consumed.

<sup>393</sup> Thermal efficiency is the amount of energy in the production (*e.g.*, hydrogen) compared to the energy input to the process (*e.g.*, natural gas). At an efficiency of 80 percent, the product contains 80 percent of the energy input and 20 percent is lost.

<sup>394</sup> Powell, D. (2020). *Focus on Blue Hydrogen*. Gaffney Cline. [https://www.gaffneycline.com/sites/g/files/cozyhq681/files/2021-08/Focus\\_on\\_Blue\\_Hydrogen\\_Aug2020.pdf](https://www.gaffneycline.com/sites/g/files/cozyhq681/files/2021-08/Focus_on_Blue_Hydrogen_Aug2020.pdf).

<sup>395</sup> “Comparative assessment of blue hydrogen from steam methane reforming, autothermal reforming, and natural gas decomposition technologies for natural gas production regions,” *Energy Conversion and Management*, February 15, 2022.

aspects of their GHG emissions footprints.<sup>396</sup>

In contrast to the three methods discussed above, electrolysis does not use methane as a feedstock. In electrolysis, hydrogen is produced by splitting water into its components, hydrogen and oxygen (O<sub>2</sub>), via electricity. During electrolysis, a negatively charged cathode and positively charged anode are submerged in water and an electric current is passed through the water. The result is hydrogen molecules appearing at the negative cathodes and O<sub>2</sub> appearing at the positive anodes. Electrolysis does not emit GHG emissions at the hydrogen production site; the overall GHG emissions associated with electrolysis are instead dependent upon the source of the energy used to decompose the water.<sup>397</sup> According to the DOE, electrolysis powered by fossil fuel energy supplied by the electric grid, based on a national average, would generate overall GHG emissions double those of hydrogen produced via SMR without CCS.<sup>398 399</sup> However, electrolysis powered by wind, solar, hydroelectric, or nuclear energy is generally considered to lower overall GHG emissions.<sup>400 401 402</sup> It should be

<sup>396</sup> In addition, methane extraction operations are known to contribute to air toxics including benzene, ethylbenzene, and n-hexane. <https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/basic-information-oil-and-natural-gas>.

<sup>397</sup> Similarly, the overall GHG emissions associated with methane pyrolysis are dependent upon the source of the energy used to decompose the methane and is a key factor to whether it qualifies as low-GHG hydrogen.

<sup>398</sup> DOE (2022). *DOE National Clean Hydrogen Strategy and Roadmap*. Draft—September 2022. <https://www.hydrogen.energy.gov/pdfs/clean-hydrogen-strategy-roadmap.pdf>.

<sup>399</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023: <https://liffenergy.gov/wp-content/uploads/2023/03/20230320-Lift-off-Clean-H2-vPUB-0329-update.pdf>. From the *Lift-off report*, “Carbon intensities are based on data from the Carnegie Mellon Power Sector Carbon Index as well as national averages in grid mix carbon intensity—in some states, grid carbon intensity can be as high as 40 kg CO<sub>2</sub>e/kg H<sub>2</sub>.”

<sup>400</sup> U.S. Department of Energy (DOE) (n.d.). *Hydrogen Production: Electrolysis*. <https://www.energy.gov/eere/fuelells/hydrogen-production-electrolysis>.

<sup>401</sup> For each kg of hydrogen produced through electrolysis, 9 kg of byproduct oxygen are also produced and 9 kg of purified water are consumed. To reduce the cost of hydrogen production, this byproduct oxygen could be captured and sold. For each gallon of water consumed, 0.057 MMBtu of hydrogen is produced. According to the water use requirements for combined cycle EGUs with cooling towers, if this hydrogen is later used to produce electricity in a combined cycle EGU, overall water requirements would be greater than a combined cycle EGU with CCUS.

<sup>402</sup> Electrolysis and other technologies that break apart water to form hydrogen and oxygen consume more water than SMR without CCS. Resource Assessment for Hydrogen Production. National

noted that electrolytic systems utilizing even a small portion of grid-based electricity may not have lower overall GHG emissions and carbon intensities than SMR without CCS.<sup>403</sup> This concern is likely to be mitigated over time as the carbon intensity of the grid declines, given the influx of new renewable generation—the EPA’s post-IRA 2022 reference case projects a lower carbon intensity of the grid—coupled with expected retirements of higher-emitting sources. Naturally occurring hydrogen stored in subsurface geologic formations is also gaining attention as a potential low-GHG source of hydrogen.

#### vi. The EPA’s Proposed BSER and Definition of Low-GHG Hydrogen

The EPA is proposing that the second component of the BSER for new combustion turbines in the relevant subcategories is co-firing 30 percent (by volume) low-GHG hydrogen and that sources meet a corresponding standard of performance by 2032. The EPA is also proposing that new base load combustion turbines that are subject to a standard of performance based on co-firing 30 percent (by volume) low-GHG hydrogen in 2032 must also meet a more stringent standard of performance based on a BSER of co-firing 96 percent (by volume) low-GHG hydrogen by 2038. This section describes the factors the EPA considered in determining what level of co-firing qualifies as a component of the BSER for affected sources and the timing for when that level of co-firing could be technically feasible and of reasonable cost. Key factors informing this determination include the magnitude of CO<sub>2</sub> emission reductions at the combustion turbines, the availability of combustion turbines capable of co-firing hydrogen, potential infrastructure limitations, and access to low-GHG hydrogen.

The relationship between the volume of hydrogen fired and the reduction in CO<sub>2</sub> stack emissions is exponential. At low levels of co-firing there are modest emission reduction benefits, but these reduction benefits amplify as the volume of hydrogen increases due to the lower energy density of hydrogen

Renewable Energy Laboratory (NREL)/TP-5400-77198, July 2020). <https://www.nrel.gov/docs/fy20osti/77198.pdf>. Aside from methane pyrolysis and byproduct hydrogen, other hydrogen production methods consume water during the production process and indirectly due to electricity generation upstream. The moisture present in coal and biomass could be recovered and used in the water gas shift reaction to reduce (or eliminate) water requirements.

<sup>403</sup> U.S. Department of Energy (DOE). Pathways to Commercial Lifting: Clean Hydrogen. March 2023. <https://www.energy.gov/articles/doe-releases-new-reports-pathways-commercial-lift-off-accelerate-clean-energy-technologies>.

compared to natural gas. For example, co-firing 10 percent hydrogen by volume yields approximately a 3 percent CO<sub>2</sub> reduction at the stack, co-firing 30 percent hydrogen yields a 12 percent CO<sub>2</sub> reduction, co-firing 75 percent hydrogen yields a 49 percent CO<sub>2</sub> reduction, and at 100 percent hydrogen co-firing there are zero CO<sub>2</sub> emissions at the stack.

Importantly, co-firing 30 percent hydrogen by volume is consistent with existing technologies across multiple combustion turbine designs and should be considered a minimal level for evaluation as a system of emission reduction. While all major manufacturers are developing combustion turbines that can co-fire higher volumes of hydrogen, some combustion turbine models are already able to co-fire relatively high percentages.<sup>404</sup> Several currently available new combustion turbine models can burn up to 75 percent hydrogen by volume.<sup>405</sup> Combustion turbine designs capable of co-firing 30 percent hydrogen by volume are available from multiple manufacturers at multiple sizes. As such, a BSER that included co-firing 30 percent hydrogen by volume would not pose challenges for near-term implementation for the EPA's proposed second phase standards beginning in 2032. The EPA is soliciting comment on whether the new and reconstructed combustion turbines will have available combustion turbine designs that would allow higher levels of hydrogen co-firing, such as 50 percent or more by volume by 2030 or 2032. If such combustion turbines are sufficiently available, this would support moving forward the starting compliance date of the second phase of the standards of performance and/or increasing the percent of hydrogen co-firing assumed in establishing the standards.

Because the cost of natural gas is lower than the cost of hydrogen, most new combustion turbines are not, at the present time, designed to burn 100 percent hydrogen when they are placed into service. However, some turbines are available now that can combust 100 percent hydrogen in the future and there is significant evidence that such turbines will be more widely available by the 2030s.<sup>406</sup> Multiple vendors have indicated that they intend to have

turbines available that fire 100 percent hydrogen in that timeframe.<sup>407 408 409</sup> For example, as noted in section IV.E of this preamble, the LADWP Scattergood Modernization project includes plans to have a hydrogen-ready combustion turbine in place when the 346-MW combined cycle plant (potential for up to 830 MW) begins initial operations in 2029. LADWP foresees the plant running on 100 percent electrolytic hydrogen by 2035.<sup>410</sup> The Intermountain Power Project, also noted in section IV.E of this preamble, commenced construction in 2022 on an 840-MW M501 JAC Mitsubishi Hitachi Power Systems combustion turbine designed to operate using 30 percent (by volume) hydrogen upon startup. The plant is projected to be operational by July 2025 and to transition to 100 percent hydrogen by 2045.<sup>411</sup> Several existing gas turbine technologies are capable of operating with 100 percent hydrogen, including Siemens Energy's SGT-A35 and General Electric's B, E, and F class gas turbines.<sup>412</sup> Comments submitted to the EPA's non-regulatory docket confirm that at the present time, existing units can be retrofitted to operate using 100 percent hydrogen. DOE's National Energy Technology Lab states: Based on data from a literature survey and input from manufacturers, NETL has found that today's modern gas turbines can reliably combust 30–60 percent hydrogen fuels with similar NO<sub>x</sub> emissions as compared to their pure natural gas counterparts. Public and private research is underway to produce a 100 percent hydrogen-fueled turbine. NETL anticipates that industry will achieve this technology by around 2030 based on current research progress and publicly announced forecasts.<sup>413</sup>

<sup>407</sup> Mitsubishi highlights four hydrogen projects at CERWeek. <https://www.power-eng.com/hydrogen/mitsubishi-power-highlights-four-hydrogen-projects/#gref>.

<sup>408</sup> Constellation Energy Corporation's Comments on EPA Draft White Paper: Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units Docket ID No. EPA-HQ-OAR-2022-0289. Docket comments noted, "Retrofits using existing technology are available to achieve 50–100% hydrogen combustion by volume at some generators."

<sup>409</sup> Siemens Energy to provide hydrogen-capable turbines to back up utility-scale solar installation in Nebraska. <https://press.siemens-energy.com/global/en/pressrelease/siemens-energy-provide-hydrogen-capable-turbines-back-utility-scale-solar-installation>.

<sup>410</sup> [https://clkrep.lacity.org/onlinedocs/2023/23-0039\\_rpt\\_DWP\\_02-03-2023.pdf](https://clkrep.lacity.org/onlinedocs/2023/23-0039_rpt_DWP_02-03-2023.pdf).

<sup>411</sup> IPP Renewed—Intermountain Power Agency. [ipautah.com](https://www.ipautah.com).

<sup>412</sup> ICF. Retrofitting Gas Turbine Facilities for Hydrogen Blending.

<sup>413</sup> National Energy Technology Laboratory, A Literature Review of Hydrogen and Natural GAS

Turbine projects that have recently been built and that are currently under construction (such as the Longview turbine and the Intermountain Power Project discussed elsewhere in this preamble) are being developed with the understanding that these technology advances will be retrofittable to these types of turbines. It is worth noting that in many cases, existing turbines are able to co-fire large amounts of hydrogen without significant re-engineering. This is because their burners are developed relatively simply and are able to combust large amounts of hydrogen. In retrospect almost all new turbines are designed with more sophisticated burners that closely control the mixture of air and fuel to maximize efficiency while limiting nitrogen oxide generation. Because hydrogen has very different characteristics than natural gas such as higher flame temperature, these burners need to be re-engineered to accommodate large amounts of hydrogen.<sup>414 415</sup> For more information about the status of combustion turbines with respect to combusting hydrogen see the TSD, "Hydrogen in Combustion Turbine EGUs," in the docket for this rulemaking.

Access to low-GHG hydrogen, however, is also an important component of the BSER analysis. Midstream infrastructure limitations and the adequacy and availability of hydrogen storage facilities currently present obstacles and increase prices for delivered low-GHG hydrogen. This is part of the rationale for why the EPA is not proposing hydrogen co-firing as part of the first component of the BSER. Moving gas via pipeline tends to be the least expensive transport and today there are 1,600 miles of dedicated hydrogen pipeline infrastructure.<sup>416</sup> As noted later in a section of this preamble, based on industry announcements, many electrolytic hydrogen production projects will be sited near existing

Turbines: Current State of the Art With Regard to Performance and NO<sub>x</sub> Control (DOE/NETL-2022/3812), August 12, 2022. <https://netl.doe.gov/sites/default/files/publication/A-Literature-Review-of-Hydrogen-and-Natural-Gas-Turbines-081222.pdf>; Department of Energy, National Energy Technology Laboratory, "Experts Discuss Use of Hydrogen-Fueled Turbines to Drive Clean Energy" September 15, 2022. <https://netl.doe.gov/node/12058>.

<sup>414</sup> Siemens Energy, "Ten Fundamentals to Hydrogen Readiness" September 2022. <https://www.siemens-energy.com/global/en/news/magazine/2022/hydrogen-ready.html>.

<sup>415</sup> General Electric, "Hydrogen-Fueled Gas Turbines" [https://www.ge.com/content/dam/gepower-new/global/en\\_US/downloads/gas-new-site/future-of-energy/hydrogen-overview.pdf](https://www.ge.com/content/dam/gepower-new/global/en_US/downloads/gas-new-site/future-of-energy/hydrogen-overview.pdf).

<sup>416</sup> DOE Pathways to Commercial Liftoff: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>404</sup> Mitsubishi Power Americas. [https://power.mhi.com/special/hydrogen/article\\_1](https://power.mhi.com/special/hydrogen/article_1).

<sup>405</sup> Overcoming technical challenges of hydrogen power plants for the energy transition. <https://www.nsenerybusiness.com>.

<sup>406</sup> <https://www.dieselturbine.com/news/siemens-energy-explores-gas-turbines-future-in-net-zero-energy-mix/8024799.article>.

infrastructure and, in certain cases, will provide combustion turbines access to supply and delivery solutions. Hydrogen blending into existing natural gas pipelines presents another mode of transport and distribution that is actively in use in Hawaii and under exploration in other areas of the country.<sup>417</sup> On-road distribution methods include gas-phase trucking and liquid hydrogen trucking, the latter requiring cooling and compression prior to transport. Different regional distribution solutions may emerge initially in response to localized hydrogen demand.

Gaseous and liquified hydrogen storage technologies are developing, along with lined hard rock storage and limited but promising geologic salt cavern storage. Increased storage capacity and market demand for low-GHG hydrogen is anticipated in response to Federal H2Hub investments as low-GHG hydrogen develops from a localized fuel into a national commodity.

Given the growth in the hydrogen sector and Federal funding for the H2Hubs, which will explicitly explore and incentivize hydrogen distribution, the EPA therefore believes hydrogen distribution and storage infrastructure will not present a barrier to access for new combustion turbines opting to co-fire 30 percent low-GHG hydrogen by volume in 2032 and to co-fire 96 percent low-GHG hydrogen by volume in 2038. The EPA is soliciting comment on the expected low-GHG hydrogen availability by those dates. The EPA is also soliciting comment on whether hydrogen infrastructure is likely to be sufficiently developed by 2030 to provide access to low-GHG hydrogen for new and reconstructed combustion turbines. If so, this would support moving forward the compliance date of the second phase of the standards of performance and/or increase the percent of hydrogen co-firing assumed in establishing the standards.

Whether there will be sufficient volumes of low-GHG hydrogen for new sources to co-fire 30 percent by volume between 2030 and 2032 and then for some base load sources to co-fire 96 percent by 2038 will depend on the deployment of additional low-GHG electric generation sources, the growth of electrolyzer capacity, and market demand. Along with the power sector, the industrial and transportation sectors are also advancing hydrogen-ready technologies. Industries and policymakers in those sectors are

actively planning to use hydrogen to drive decarbonization. For the industrial sector where hydrogen is a chemical input to the process or a replacement for liquid fuels, multiple projection pathways are being considered as approaches to lower the GHG intensity of these sectors. The production pathways for the industrial sector include, but are not limited to, fossil-derived hydrogen in combination with CCS. However, due to thermodynamic inefficiencies in using hydrogen to produce electricity, it is likely that only a specific type of low-GHG hydrogen will be used in the power sector.

Announcements of co-firing applications support this assertion, and as discussed in another section of this preamble, the power sector is already focused on utilizing low-GHG hydrogen, electricity generators are likely to have ample access to low-GHG hydrogen and in sufficient quantities to support 30 percent co-firing by 2032 and 96 percent by 2038. The DOE's estimates of clean hydrogen production volumes of 10 MMT by 2030 and 20 MMT by 2040, referenced throughout this rulemaking, do not apportion which type of hydrogen is likely to be produced, just that it is 'clean.'<sup>418</sup> The available credits for the lowest GHG hydrogen production tier under IRC section 45V tax subsidies going into effect in 2023, as outlined in another section of this preamble, are three times higher than the credit values allotted for other hydrogen production tiers in IRC section 45V. This incentive can be combined with additional monetization access through direct pay and transferability, and therefore has the potential to drive significant volumes of electrolytic hydrogen, which is likely to be considered as low-GHG hydrogen in this proposal.<sup>419</sup> The EPA's hydrogen co-firing BSER proposal, if finalized, would create a significant additional demand driver for electrolytic hydrogen not considered in the DOE's hydrogen production goals of 10 MMT by 2030 and 20 MMT by 2040. Indeed, high volumes of electrolytic hydrogen were central to pathways enabling the power sector to achieve net-zero emissions by

2035 according to analysis by the National Renewable Energy Laboratory (NREL).<sup>420</sup> These incentives will be multiplied by investments through the DOE's H2Hub program. Electrolytic production costs, inclusive of the 45V PTC, are estimated to fall to less than \$0.40/kg by 2030; this could translate to delivered cost of hydrogen for combustion turbines in 2030 between \$0.70/kg and \$1.15/kg depending on storage and distribution costs.<sup>421</sup> The EPA is soliciting comment on whether sufficient quantities of low-GHG hydrogen are likely to be available at reasonable costs by 2030. If so, this would support moving forward the compliance date of the second component of the BSER and/or increase the percent of hydrogen co-firing assumed in establishing the standard of performance.

As discussed earlier, an important feature of hydrogen as a potential fuel for combustion turbines is the level of GHG emissions generated during the production process, with different processes resulting in different levels of GHG emissions. The EPA proposes to conclude that co-firing with low-GHG hydrogen (but not other forms of hydrogen) appropriately considers the statutory factors and constitutes the "best" system of emission reduction. Here, the EPA discusses the proposed definition of low-GHG hydrogen. In the IJJA and IRA, Congress established programs to support the development of low-GHG hydrogen, including section 40314 of the IJJA which established a \$8 billion Clean Hydrogen Hubs H2Hubs program, the \$500 million Clean Hydrogen Manufacturing and Recycling Program, and a \$1 billion Clean Hydrogen Electrolysis Program to further electrolysis development. Section 40315 of the IJJA required DOE to establish a non-regulatory Clean Hydrogen Production Standard (CHPS). Most recently, in the IRA, section 13204, Congress authorized the clean hydrogen production tax credit (45V). Several Federal agencies, including the EPA, are implementing those programs. DOE consulted the EPA while developing its proposed CHPS, which included examining various hydrogen production processes and the spectrum of resulting overall carbon intensities.

<sup>418</sup> DOE, as required by the IJJA, proposed a Clean Hydrogen Production Standard (CHPS) of having an overall emissions rate of 4 kg CO<sub>2</sub>e/kg H<sub>2</sub>. CHPS is not an actual standard, rather a non-binding tool for DOE's internal use with selecting projects under the H2Hubs program. DOE's proposed CHPS can be found at <https://www.hydrogen.energy.gov/pdfs/clean-hydrogen-production-standard.pdf>.

<sup>419</sup> "The Hydrogen Credit Catalyst: How US Treasury guidance on a new tax credit could shape the clean hydrogen economy, the future of American industry, and orient the power sector for full decarbonization," Rocky Mountain Institute, February 27, 2023.

<sup>420</sup> Denholm, Paul, Patrick Brown, Wesley Cole, et al. 2022. Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035. Golden, CO: National Renewable Energy Laboratory. NREL/TP[1]6A40-81644. <https://www.nrel.gov/docs/fy22osti/81644.pdf>.

<sup>421</sup> U.S. Department of Energy (DOE). Pathways to Commercial Liftoff: Clean Hydrogen. March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>417</sup> <https://www.hawaiigas.com/clean-energy/decarbonization>.

That collaborative process provided useful points of reference for the EPA to use in proposing a definition in this rulemaking.

In enacting the IRA, Congress recognized that different methods of hydrogen production generate different amounts of GHG emissions and sought to encourage lower-emitting production methods through the multi-tier hydrogen production tax credit (IRC section 45V). The IRC section 45V tax credits provide four tiers of tax credits, and thus award the highest amount of tax credits to the hydrogen production processes with the lowest estimated GHG emissions. The highest tier of the credits is \$3/kg H<sub>2</sub> for 0.0 to 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> produced, and the lowest is \$0.6/kg H<sub>2</sub> for 2.5 to 4.0 kg CO<sub>2</sub>e/kg H<sub>2</sub>.<sup>422</sup> Congress also provided a definition of “clean hydrogen” in section 822 of the IJA. This provision sets out a non-binding goal intended for use in development of the DOE’s Clean Hydrogen Production Standard (CHPS) and DOE’s funding programs to promote promising new hydrogen technologies.

Several Federal agencies are engaging in low-GHG hydrogen-related efforts, some of which implement the IRA and IJA provisions. As discussed earlier in this section, the DOE is working on a Clean Hydrogen Production Standard,<sup>423</sup> an \$8 billion Clean Hydrogen Hub solicitation,<sup>424</sup> and several hydrogen-related research and development grant programs.<sup>425</sup> The Department of the Treasury is taking public comment on examining appropriate parameters for evaluating overall emissions associated with hydrogen production pathways as it prepares to implement IRC section 45V.<sup>426</sup> Within the EPA, there are rulemaking efforts that could impact low-GHG hydrogen production pathways, namely the proposed and supplemental oil and gas emission guidelines to reduce methane emissions.

The IJA includes both a textual definition of “clean hydrogen” and requires the DOE to develop a Clean Hydrogen Production Standard; these two references are related but distinct. Upon review of the reference points that these legislative provisions and Agency

programs provide, it is apparent that the clean hydrogen definition in section 822 of the IJA is not appropriate for the purposes of this rule. As noted, this provision sets a non-binding goal for use in the development of the DOE’s Clean Hydrogen Production Standard (CHPS) and the DOE’s funding programs to promote promising new hydrogen technologies. The definition of clean hydrogen in the IJA is limited to GHGs emitted at the hydrogen production site and is therefore not intended to consider overall GHG emissions associated with that production method. According to the IJA, clean hydrogen as defined as part of the CHPS is “. . . hydrogen produced with a carbon intensity equal to or less than 2 kilograms of carbon dioxide-equivalent produced *at the site of production* per kilogram of hydrogen produced” (emphasis added). A significant portion of the GHG emissions associated with hydrogen derived from natural gas originates from upstream methane emissions, which are not accounted for in the CHPS definition.<sup>427</sup> That definition was taken into consideration, along with multiple other data points, for development of the CHPS. In CHPS draft guidance, a target of 4 kg CO<sub>2</sub>e/kg H<sub>2</sub> on a well-to-gate basis, which aligns with full range of the IRC section 45V definition in the IRA.<sup>428</sup>

In contrast, the EPA believes that the highest tier of the IRC section 45V(b)(2) production tax credit is salient for purposes of the present rule. That provision provides the highest available amount of production tax credit for hydrogen produced through a process that has a GHG emissions rate of 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less, from well-to-gate. As explained further below, the EPA proposes that co-firing hydrogen that meets this criterion qualifies as a component of the “best” system of emission reduction, taking into account the statutory considerations. Thus, consistent with the tiered approach and system boundaries in the IRA definition of clean hydrogen, the EPA is proposing that low-GHG hydrogen is hydrogen that is produced through a process that has a GHG emissions rate of 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less, from well-to-gate. Each of the subsequent hydrogen production categories outlined in 45V(b)(2) convey increasingly higher amounts of GHG emissions (from a well-to-gate analysis), making them less suitable to be a component of the BSER.

Electrolyzers with various low-GHG energy inputs, like solar, wind, hydroelectric, and nuclear, appear most likely to produce hydrogen that would meet the 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less, from well-to-gate criteria.<sup>429</sup> Hydrogen production pathways using methane as a feedstock induce upstream methane emissions associated with extraction, production, and transport of the methane. SMR and ATR also release heating and process-related CO<sub>2</sub> emissions that are difficult to capture at high rates economically. High contributions to overall GHG emission rates may disqualify certain hydrogen production pathways from producing low-GHG hydrogen. The EPA recognizes that the pace and scale of government programs and private research suggest that we will gain significant experience and knowledge on this topic during the timeframe of this proposed rulemaking. Accordingly, the EPA is soliciting comment broadly on its proposed definition for low-GHG hydrogen, and on alternative approaches, to ensure that co-firing low-GHG hydrogen minimizes GHG emissions, and that combustion turbines subject to this standard utilize only low-GHG hydrogen.

The EPA is also taking comment on whether it is necessary to provide a definition of low-GHG hydrogen in this rule. Given the incentives provided in both the IRA and IJA for low-GHG hydrogen production and the current trajectory of hydrogen use in the power sector, by 2032, the start date for compliance with the proposed second phase of the standards for this rule, low-GHG hydrogen may be the most common source of hydrogen available for electricity production. For the most part, companies that have announced that they are exploring the use of hydrogen co-firing have stated that they intend to use low-GHG hydrogen. These power suppliers include NextEra, Los Angeles Department of Power and Water, and New York Power Authority, as discussed earlier in this section. Many utilities and merchant generators own nuclear, wind, solar, and hydroelectric generating sources as well as combustion turbines. The EPA has identified an emerging trend in which energy companies with this broad collection of generation assets are planning to produce low-GHG hydrogen for sale and to use a portion of it to fuel their stationary combustion turbines. This emerging trend lends support to the view that the power sector is likely

<sup>422</sup> These amounts assume that wage and apprenticeship requirements are met.

<sup>423</sup> U.S. Department of Energy (DOE). (September 22, 2022). Clean Hydrogen Production Standard. Hydrogen and Fuel Cell Technologies Office. <https://www.energy.gov/eere/fuelcells/articles/clean-hydrogen-production-standard>.

<sup>424</sup> <https://www.energy.gov/oced/regional-clean-hydrogen-hubs>.

<sup>425</sup> [https://www.hydrogen.energy.gov/funding\\_opportunities.html](https://www.hydrogen.energy.gov/funding_opportunities.html).

<sup>426</sup> <https://home.treasury.gov/news/press-releases/jy0993>.

<sup>427</sup> Infrastructure Investment and Jobs Act of 2021 Law PUBL058.PS (<https://www.congress.gov>).

<sup>428</sup> U.S. Department of Energy Clean Hydrogen Production Standard (CHPS) Draft Guidance

<sup>429</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

to have access to and will choose to utilize low-GHG hydrogen for its co-firing applications. Some NGOs have expressed concern that existing non-emitting assets will channel electricity from the grid toward electrolyzers, potentially increasing marginal electricity generation from assets with higher carbon intensities. The EPA agrees these are important issues that should be considered as levels of excess zero carbon-emitting generation vary diurnally and by region. The EPA notes that these concerns should mitigate over time as the carbon intensity of the grid is projected to decline.

Moreover, by the next decade, costs for low-GHG hydrogen are expected to be competitive with higher-GHG forms of hydrogen given declines due to learning and the IRC section 45V subsidies. Given the tax credits in IRC section 45V(b)(2)(D) of \$3/kg H<sub>2</sub> for hydrogen with GHG emissions of less than 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub>, and substantial DOE grant programs to drive down costs of clean hydrogen, some entities project the delivered costs of electrolytic low-GHG hydrogen to range from \$1/kg H<sub>2</sub> to \$0/kg H<sub>2</sub> or less.<sup>430 431 432</sup> These projections are more optimistic than, but still comparable to, DOE projections of 2030 for delivered costs of electrolytic low-GHG hydrogen in the range of \$0.70/kg to \$1.15/kg for power sector applications, given R&D advancements and economies of scale.<sup>433</sup> A growing number of studies are demonstrating more efficient and less expensive techniques to produce low-GHG electrolytic hydrogen; and, tax credits and market forces are expected to accelerate innovation and drive down costs even further over the next decade.<sup>434 435 436</sup> The combination of competitive pricing and widespread net-zero commitments throughout the utility and merchant electricity generation market has the potential to drive future hydrogen co-firing applications to be low-GHG

hydrogen.<sup>437</sup> The EPA is therefore soliciting comment on whether low-GHG hydrogen needs to be defined as part of the BSEER in this proposed rulemaking.

vii. Justification for Proposing 30 Percent Co-Firing Low-GHG Hydrogen and 96 Percent Co-Firing Low-GHG Hydrogen as Components of the BSEER

The EPA is proposing that co-firing 30 percent low-GHG hydrogen, as proposed to be defined above, by new combustion turbines in the relevant subcategories, by 2032, meets the requirements under CAA section 111(a)(1) to qualify as a component of the BSEER. Similarly, the EPA is proposing that co-firing 96 percent low-GHG hydrogen by new base load combustion turbines in the relevant subcategory, by 2038, also meets the requirements under CAA section 111(a)(1) to qualify as a component of the BSEER. As discussed below, co-firing 30 percent low-GHG hydrogen is adequately demonstrated because it is feasible and well-demonstrated for new combustion turbines to co-fire that percentage of hydrogen and multiple combustion turbine vendors have targets to have 100 percent hydrogen-capable combustion turbines available by around 2030 and are selling combustion turbines today with the intention of those combustion turbines being retrofittable to 100 percent hydrogen firing.<sup>438 439</sup> Several project developers have announced plans to transition from lower levels of co-firing up to firing with 100 percent hydrogen.

The EPA proposes that co-firing 30 percent low-GHG hydrogen by 2032 and 96 percent by 2038 qualify as a BSEER pathway for new baseload combustion turbines. For the reasons discussed next, the EPA proposes that co-firing low-GHG hydrogen on that pathway is adequately demonstrated in light of the capability of combustion turbines to co-fire hydrogen and the EPA's reasonable expectation that adequate quantities of low-GHG hydrogen will be available by 2032 and 2038 and at reasonable cost. Moreover, combusting hydrogen will achieve reductions because it does not produce GHG emissions and will not have adverse non-air quality health or environmental impacts or energy requirements, including on the nationwide energy sector. Because the

production of low-GHG hydrogen generates the fewest GHG emissions, the EPA proposes that co-firing low-GHG hydrogen, and not other types of hydrogen, qualifies as the "best" system of emission reduction. The fact that co-firing low GHG hydrogen creates market demand for, and advances the development of, low-GHG hydrogen, a fuel that is useful for reducing emissions in the power sector and other industries, provides further support for this proposal.

(A) Adequately Demonstrated

As part of the present rulemaking, the EPA evaluated the ability of new combustion turbines to operate with certain percentages (by volume) of hydrogen blended into their fuel systems. This evaluation included an analysis of the technical challenges of co-firing hydrogen in a combustion turbine EGU to generate electricity. The EPA also evaluated available information to determine if adequate quantities of low-GHG hydrogen can be reasonably expected to be available for combustion turbine EGUs by 2032.

Although industrial combustion turbines have been burning byproduct fuels containing large percentages of hydrogen for decades, utility combustion turbines have only recently begun to co-fire smaller amounts of hydrogen as a fuel to generate electricity. The primary technical challenges of hydrogen co-firing are related to certain physical characteristics of the gas. When hydrogen fuel is combusted, it produces a higher flame speed than the flame speed produced with the combustion of natural gas; and hydrogen typically combusts at a faster rate than natural gas. When the combustion speed is faster than the flow rate of the fuel, a phenomenon known as "flashback" can occur, which can lead to upstream complications.<sup>440</sup> Hydrogen also has a higher flame temperature and a wider flammability range compared to natural gas.<sup>441</sup>

The industrial combustion turbines currently burning hydrogen are smaller than the larger utility combustion turbines and use diffusion flame combustion, often in combination with water injection, for NO<sub>x</sub> control. While

<sup>440</sup> Inoue, K., Miyamoto, K., Domen, S., Tamura, I., Kawakami, T., & Tanimura, S. (2018). *Development of Hydrogen and Natural Gas Co-firing Gas Turbine*. Mitsubishi Heavy Industries Technical Review. Volume 55, No. 2. June 2018. [https://power.mhi.com/randd/technical-review/pdf/index\\_66e.pdf](https://power.mhi.com/randd/technical-review/pdf/index_66e.pdf).

<sup>441</sup> Andersson, M., Larfeldt, J., Larsson, A. (2013). *Co-firing with hydrogen in industrial gas turbines*. [http://sgc.camero.se/ckfinder/userfiles/files/SGC256\(1\).pdf](http://sgc.camero.se/ckfinder/userfiles/files/SGC256(1).pdf).

<sup>430</sup> "US green hydrogen costs to reach sub-zero under IRA: longer-term price impacts remain uncertain," S&P Global Commodity Insights, September 29, 2022.

<sup>431</sup> "DOE Funding Opportunity Targets Clean Hydrogen Technologies" American Public Power, January 31, 2023.

<sup>432</sup> With the 45V PTC, delivered costs of hydrogen are projected to fall in the range of \$0.70/kg to \$1.15/kg for power sector applications.

<sup>433</sup> DOE Pathways to Commercial Liftoff: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>434</sup> "Sound waves boost green hydrogen production," Power Engineering, January 4, 2023.

<sup>435</sup> "Direct seawater electrolysis by adjusting the local reaction environment of a catalyst," Nature Energy, January 30, 2023.

<sup>436</sup> <https://h2new.energy.gov/>.

<sup>437</sup> DOE Pathways to Commercial Liftoff: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>438</sup> <https://www.powermag.com/first-hydrogen-burn-at-long-ridge-ha-class-gas-turbine-marks-triumph-for-ge/>.

<sup>439</sup> [https://www.doosan.com/en/media-center/press-release\\_view?id=20172449](https://www.doosan.com/en/media-center/press-release_view?id=20172449).



water injection requires demineralized water and is generally only a NO<sub>x</sub> control option for simple cycle turbines, existing simple cycle combustion turbines have successfully demonstrated that relatively high levels of hydrogen can be co-fired in combustion turbines using diffusion flame and supports the EPA's proposal to determine that co-firing 30 percent hydrogen is technically feasible for new base load and intermediate load stationary combustion turbine EGUs by 2032 and that co-firing higher levels—up to 96 percent by volume—is feasible by 2038. The EPA solicits comment on these proposed findings.

The more commonly used NO<sub>x</sub> combustion control for base load combined cycle turbines is dry low NO<sub>x</sub> (DLN) combustion. Even though the ability to co-fire hydrogen in combustion turbines that are using DLN combustors to reduce emissions of NO<sub>x</sub> is currently more limited, all major combustion turbine manufacturers have developed DLN combustors for utility EGUs that can co-fire hydrogen.<sup>442</sup> Moreover, the major combustion turbine manufacturers are designing combustion turbines that will be capable of combusting 100 percent hydrogen by 2030, with DLN designs that assure acceptable levels of NO<sub>x</sub> emissions.<sup>443 444</sup> Several developers have announced installations with plans to initially co-fire lower percentages of low-GHG hydrogen by volume before gradually increasing their co-firing percentages—to as high as 100 percent in some cases—depending on the pace of the anticipated expansion of low-GHG hydrogen production processes and associated infrastructure. The goals of equipment manufacturers and the fact that existing combined cycle combustion turbines have successfully demonstrated the ability to co-fire various percentages of hydrogen supports the EPA's proposal to determine that co-firing 30 percent hydrogen is technically feasible for new base load stationary combustion turbine EGUs by 2032 and that co-firing 96 percent hydrogen is technically feasible

for new base load stationary combustion turbine EGUs by 2038.

The combustion characteristics of hydrogen can lead to localized higher temperatures during the combustion process. These “hotspots” can increase emissions of the criteria pollutant NO<sub>x</sub>.<sup>445</sup> NO<sub>x</sub> emissions resulting from the combustion of high percentage by volume blends of hydrogen are also of concern in many regions of the country. For turbines using diffusion flame combustion, water or steam injection is used to control emissions of NO<sub>x</sub>. The level of water injection can be varied for different levels of NO<sub>x</sub> control and adjustments can be made to address any potential increases in NO<sub>x</sub> that would occur from co-firing hydrogen in combustion turbines using diffusion flame combustion. As stated previously, all major combustion turbine manufacturers have developed DLN combustors for utility EGUs that can co-fire hydrogen and are designing combustion turbines that will be capable of combusting 100 percent hydrogen by 2030, with DLN designs that assure acceptable levels of NO<sub>x</sub> emissions. In addition, EGR in diffusion flame combustion turbines reduces the oxygen concentration in the combustor and limits combustion temperatures and NO<sub>x</sub> formation. Furthermore, while combustion controls can achieve low levels of NO<sub>x</sub>, many new intermediate load and base load combustion turbines using DLN combustion also use selective catalytic reduction (SCR) to reduce NO<sub>x</sub> emissions even further. The design level of control from SCR can be tied to the exhaust gas concentration. At higher levels of incoming NO<sub>x</sub>, either the reagent injection rate can be increased and/or the size of the catalyst bed can be increased.<sup>446</sup> The EPA has concluded that any potential increases in NO<sub>x</sub> emissions do not change the Agency's view that on balance, co-firing low-GHG hydrogen qualifies as a component of the BSER.

As noted above, at present, most of the hydrogen produced in the U.S. is produced for the industrial sector through SMR, which is a high GHG-emitting process. Limited quantities of hydrogen are currently being produced via SMR with CCS, which reduces some, but not all, of the associated GHG-

emitting processes. Only small-scale facilities are currently producing hydrogen through electrolysis with renewable or nuclear energy, and as described below, much larger facilities are under development.

However, as also noted above, incentives in recent Federal legislation are anticipated to significantly increase the availability of low-GHG hydrogen by 2032, including for the utility power sector. The IJJA, enacted in 2021, allocated more than \$9 billion to the DOE for research, development, and demonstration of low-GHG hydrogen technologies and the creation of at least four regional low-GHG hydrogen hubs. The DOE has indicated its intention to fund between six and 10 hubs.<sup>447</sup> In addition, the IRA provided significant incentives to invest in low-GHG hydrogen production (For additional discussion of the IJJA and/or IRA, see section IV.E of this preamble.)

Programs from the IJJA and IRA have been successful in prompting the development of new low-GHG hydrogen projects and infrastructure. As of August 2022, 374 new projects had been announced that would produce 2.2 megatons (Mt) of low-GHG hydrogen annually, which represents a 21 percent increase over current output.<sup>448</sup> Examples include:

- In June 2022, the DOE issued a \$504.4 million loan guarantee to finance Advanced Clean Energy Storage (ACES), a low-GHG hydrogen production and long-term storage facility in Delta, Utah.<sup>449</sup> The facility will use 220 MW of electrolyzers powered by renewable energy to produce low-GHG hydrogen. The hydrogen will be stored in salt caverns and serve as a long-term fuel supply for the combustion turbine at the Intermountain Power Agency (IPA) project, which is described earlier in this section.
- In January 2023, NextEra announced an 800-MW solar project in the central U.S. to support the development of low-GHG hydrogen as well as plans to produce its own low-

<sup>442</sup> Siemens Energy (2021). *Overcoming technical challenges of hydrogen power plants for the energy transition*. NS Energy. <https://www.nseenergybusiness.com/news/overcoming-technical-challenges-of-hydrogen-power-plants-for-energy-transition/>.

<sup>443</sup> Simon, F. (2021). *GE eyes 100% hydrogen-fueled power plants by 2030*. <https://www.euractiv.com/section/energy/news/ge-eyes-100-hydrogen-fuelled-power-plants-by-2030/>.

<sup>444</sup> Patel, S. (2020). *Siemens' Roadmap to 100% Hydrogen Gas Turbines*. <https://www.powermag.com/siemens-roadmap-to-100-hydrogen-gas-turbines/>.

<sup>445</sup> Guarco, J., Langstine, B., Turner, M. (2018). *Practical Consideration for Firing Hydrogen Versus Natural Gas*. Combustion Engineering Association. <https://cea.org.uk/practical-considerations-for-firing-hydrogen-versus-natural-gas/>.

<sup>446</sup> Siemens Energy (2021). *Overcoming technical challenges of hydrogen power plants for the energy transition*. NS Energy. <https://www.nseenergybusiness.com/news/overcoming-technical-challenges-of-hydrogen-power-plants-for-energy-transition/>.

<sup>447</sup> IJJA authorized a total of \$9.5B for hydrogen related programs (\$8 billion for Clean Hydrogen Hubs H2Hubs, \$1B for electrolyzer research and development and \$500 million for hydrogen-related manufacturing incentives). See also: U.S. Dept. of Energy, Regional Clean Hydrogen Hubs. <https://www.energy.gov/oced/regional-clean-hydrogen-hubs>.

<sup>448</sup> Energy Futures Initiative (February 2023). *U.S. Hydrogen Demand Action Plan*. <https://energyfuturesinitiative.org/reports/>.

<sup>449</sup> U.S. Department of Energy (DOE). (2022). *Loan Office Programs. Advanced Clean Energy Storage*. <https://www.energy.gov/lpo/advanced-clean-energy-storage>.

GHG hydrogen at a facility in Arizona.<sup>450</sup>

- In New York, Constellation (formerly Exelon Generation) is exploring the potential benefits of integrating onsite low-GHG hydrogen production, storage, and usage at its Nine Mile Point nuclear station. The project is funded by a DOE grant and includes partners such as Nel Hydrogen, Argonne National Laboratory, Idaho National Laboratory, and the National Renewable Energy Laboratory. The project is expected to generate an economical supply of low-GHG hydrogen that will be safely captured, stored, and potentially taken to market as a source of power for other purposes, including industrial applications such as transportation.<sup>451</sup>

- Bloom Energy began installation of a 240-kW electrolyzer at Xcel Energy's Prairie Island nuclear plant in Minnesota in September 2022 to produce low-GHG hydrogen. The demonstration project, designed to create "immediate and scalable pathways" for producing cost-effective hydrogen, is expected to be operational in 2024 and is also funded with a DOE grant.<sup>452</sup>

- In California, Sempra subsidiary SoCalGas has announced plans to develop the nation's largest hydrogen infrastructure system called "Angeles Link." When operational, the project will provide enough hydrogen to convert up to four natural gas-fired power plants. Developers predict the increased access to hydrogen will also displace 3 million gallons of diesel fuel from heavy-duty trucks.<sup>453 454</sup>

- In December 2022, Air Products and AES announced plans to build a \$4-billion low-GHG hydrogen production facility at the site of a former coal-fired power plant in Texas.<sup>455 456</sup> The plant is

expected to be completed in 2027, and once operational, will produce approximately 200 metric tons of low-GHG hydrogen per day from electrolyzers powered by 1.4 GW of wind and solar energy, as noted earlier. This follows an announcement by Air Products in October 2022 to invest \$500 million in a low-GHG hydrogen production facility in New York. This 35 metric-ton-per-day project is also expected to be operational by 2027, and in July 2022, received approval from the New York Power Authority for 94 MW of hydroelectric power.<sup>457</sup>

- The DOE National Clean Hydrogen Strategy and Roadmap identified a plausible path forward for the production of 10 MMT of low-GHG hydrogen annually by 2030, 20 MMT annually by 2040, and 50 MMT annually by 2050.

- The NREL Clean Grid 2035 analysis examined several pathways for the power sector to reach net-zero emissions by 2035; each of those pathways included at least 10 MMT of electrolytic hydrogen by 2035, demonstrating how electrolytic hydrogen technologies support rapid grid decarbonization.<sup>458</sup>

- The H2@Scale is a DOE initiative that brings together stakeholders to advance affordable hydrogen production, transport, storage, and utilization to enable decarbonization and revenue opportunities across multiple sectors.

These legislative actions, utility initiatives, and industrial sector production and infrastructure projects indicate that sufficient low-GHG hydrogen and sufficient distribution infrastructure can reasonably be expected to be available by 2032, when offtake scales after 2030,<sup>459</sup> so that, at a minimum, the majority of new combustion turbines could co-fire low-GHG hydrogen. The EPA specifically solicits comment on whether rural areas

and small utility distribution systems (serving 50,000 customers or less) can expect to have access to low-GHG hydrogen. To the extent low-GHG hydrogen might be less available in rural areas compared to areas with higher population densities, the EPA solicits comment if sufficient electric transmission capacity is available, or could be constructed, such that electricity generated from low-GHG hydrogen could be transmitted to these rural areas.

By 2035, substantial additional amounts of renewable energy are expected to be available, which can support the production of low-GHG hydrogen through electrolysis.

### (B) Costs

There are three sets of potential costs associated with co-firing hydrogen in combustion turbines: (1) The capital costs of combustion turbines that have the capability of co-firing hydrogen; (2) pipeline infrastructure to deliver hydrogen; and (3) the fuel costs related to production of low-GHG hydrogen.

As stated previously, manufacturers are already developing combustion turbines that can co-fire up to 100 percent hydrogen. Accordingly, this limits the amount of additional costs needed to allow combustion turbines to co-fire 30 percent (by volume) hydrogen and, later, 96 percent (by volume). According to data from EPRI's US-REGEN model, the heat rate of a hydrogen-fired combustion turbine model plant is 5 percent higher and the capital, fixed, and non-fuel variable costs are 10 percent higher than a natural gas-fired combustion turbine.<sup>460</sup> However, the EPA is soliciting comment on what additional costs would be required to ensure that combustion turbines are able to co-fire between 30 to 96 percent (by volume) hydrogen and if there are efficiency impacts from co-firing hydrogen.

With respect to pipeline infrastructure, there are approximately 1,600 miles of dedicated hydrogen pipelines currently operating in the U.S. Existing natural gas infrastructure may be capable of accepting blends of hydrogen with modest investments, but the actual limits will vary depending on pipeline materials, age, and operating conditions. Due to the lower energy density of hydrogen relative to natural gas, the piping required to deliver pure hydrogen would have to be larger, and the material used to construct the piping could need to be specifically designed

<sup>450</sup> Penrod, Emma. (January 30, 2023). *NextEra charts path for renewables expansion, but campaign finance allegations loom in the background*. Utility Dive. <https://www.utilitydive.com/news/nextera-renewables-expansion-green-hydrogen-solar-alleged-campaign-finance-violation/641475/>.

<sup>451</sup> <https://www.exeloncorp.com/newsroom/Pages/DOE-Grant-to-Support-Hydrogen-Production-Project-at-Nine-Mile-Point.aspx>.

<sup>452</sup> <https://www.utilitydive.com/news/bloom-energy-hydrogen-xcel-nuclear-prairie-island/632148/>.

<sup>453</sup> <https://www.socalgas.com/sustainability/hydrogen/angeles-link>.

<sup>454</sup> Penrod, Emma. (February 18, 2022). *SoCalGas begins developing 100% clean hydrogen pipeline system*. Utility Dive. <https://www.utilitydive.com/news/socalgas-begins-developing-100-clean-hydrogen-pipeline-system/619170/>.

<sup>455</sup> McCoy, Michael. (December 8, 2022). *Air Products plans big green hydrogen plant in U.S.* Chemical and Engineering News. <https://cen.acs.org/energy/hydrogen-power/Air-Products-plans-big-green/100/web/2022/12>.

<sup>456</sup> Air Products (December 8, 2022). *Air Products and AES Announce Plans to Invest Approximately \$4 Billion to Build First Mega-scale Green Hydrogen Production Facility in Texas*. <https://www.airproducts.com/news-center/2022/12/1208-air-products-and-aes-to-invest-to-build-first-mega-scale-green-hydrogen-facility-in-texas/>.

<sup>457</sup> Air Products (October 6, 2022). *Air Products to Invest About \$500 Million to Build Green Hydrogen Production Facility in New York*. <https://www.airproducts.com/news-center/2022/10/1006-air-products-to-build-green-hydrogen-production-facility-in-new-york>.

<sup>458</sup> Denholm, Paul, Patrick Brown, Wesley Cole, et al. 2022. *Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035*. Golden, CO: National Renewable Energy Laboratory NREL/TP[1]6A40-81644. <https://www.nrel.gov/docs/fy22osti/81644.pdf>.

<sup>459</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>460</sup> <https://us-regen-docs.epri.com/v2021a/assumptions/electricity-generation.html#new-generation-capacity>.



to be able to handle higher concentrations of hydrogen that would prevent embrittlement and leaks. These risks can be mitigated through deployment of new pipeline infrastructure designed for compatibility with hydrogen in support of a new combustion turbine installation. The majority of announced combustion turbine EGU projects proposing to co-fire hydrogen are located close to the source of hydrogen. Therefore, the fuel delivery systems (*i.e.*, pipes) for new combustion turbines can be designed to transport hydrogen without additional costs. Therefore, the EPA proposes that co-firing rates of 30 percent and up to 100 percent by volume would have limited, if any, additional capital costs for new combustion turbine EGU projects. The EPA is soliciting comment on if additional infrastructure costs, such as bulk hydrogen storage in salt caverns, should be accounted for when determining the costs of hydrogen co-firing.

The primary cost for co-firing hydrogen is the cost of hydrogen relative to natural gas. The cost of delivered hydrogen depends on the technology used to produce the hydrogen and the cost to transport the hydrogen to the end user. For context, the DOE National Clean Hydrogen Strategy and Roadmap cites the current cost of low-GHG electrolytic hydrogen production at approximately \$5/kg. The DOE has established a goal of reducing the cost of low-GHG hydrogen production to \$1/kg (equivalent to \$7.4/MMBtu) by 2030, which is approximately the same as the current production costs of hydrogen from SMR. Using \$1/kg (equivalent to \$7.4/MMBtu) as the delivered cost of low-GHG hydrogen, co-firing 30 percent (by volume) hydrogen in a combined cycle EGU operating at a capacity factor of 65 percent would increase both the levelized cost of electricity (LCOE) by \$2.9/MWh.<sup>461</sup> This is a 6 percent increase from the baseline LCOE. A 96 percent (by volume) co-firing rate increases the LCOE by \$21/MWh, a 47 percent increase in the baseline LCOE. Regardless of the level of hydrogen co-firing, the CO<sub>2</sub> abatement cost is \$64/ton (\$70/metric ton) at the affected facility.<sup>462</sup> For an aeroderivative simple cycle combustion turbine operating at a capacity factor of 40 percent, co-firing 30 percent hydrogen increases the LCOE by \$4.1/MWh, representing a 5 percent

increase from the baseline LCOE. A 96 percent (by volume) co-firing rate increases the LCOE by \$30/MWh, a 31 percent increase in the baseline LCOE.

However, DOE's projected goal of \$1/kg production costs (equivalent to \$7.4/MMBtu) for low-GHG hydrogen was established prior to the IIJA incentives and IRA tax subsidies for low-GHG hydrogen production, CCS, and generation from renewable sources. These subsidies could be equivalent to, or even exceed, the production costs of low-GHG hydrogen. Even when the cost to transport the hydrogen from the production facility to the end user is accounted for, the cost of low-GHG hydrogen to the end user could be less than \$1/kg. Assuming a delivered price of \$0.75/kg (\$5.6/MMBtu), the CO<sub>2</sub> abatement costs for co-firing hydrogen would be \$32/ton (\$35/metric ton). For a combined cycle EGU, the LCOE increase would be \$1.4/MWh and \$11/MWh for the 30 percent and 96 percent (by volume) cases, respectively. For a simple cycle EGU, the LCOE would be \$2.1/MWh and \$15/MWh for the 30 percent and 96 percent (by volume) cases, respectively. If the delivered cost of low-GHG hydrogen is \$0.50/kg (\$3.7/MMBtu), this would represent cost parity with natural gas and abatement costs would be zero.

The EPA is proposing to determine that the increase in operating costs from a BSER based on low-GHG hydrogen is reasonable.

#### (C) Non-Air Quality Health and Environmental Impact and Energy Requirements

The co-firing of hydrogen in combustion turbines in the amounts that the EPA proposes as the BSER would not have adverse non-air quality health and environmental impacts. It would result in NO<sub>x</sub> emissions, but those emissions can be controlled, as described in section VII.F.3.c.vii.(A) of this preamble.

In addition, co-firing hydrogen in the amounts proposed would not have adverse impacts on energy requirements, including either the requirements of the combustion turbines to obtain fuel or on the energy sector more broadly, particularly with respect to reliability. As discussed in sections VII.F.3.c.vii.(A)–(B), combustion turbines can be constructed to co-fire high volumes of hydrogen in lieu of natural gas, and the EPA expects that low-GHG hydrogen will be available in sufficient quantities and at reasonable cost. Any impact on the energy sector would be further mitigated by the large amounts of existing generation that would not be subject to requirements in

this rule and the projected new capacity in the base case modeling.

#### (D) Extent of Reductions in CO<sub>2</sub> Emissions

The site-specific reduction in CO<sub>2</sub> emissions achieved by a combustion turbine co-firing hydrogen is dependent on the volume of hydrogen blended into the fuel system. Due to the lower energy density by volume of hydrogen compared to natural gas, an affected source that combusts 30 percent by volume hydrogen with natural gas would achieve approximately a 12 percent reduction in CO<sub>2</sub> emissions versus firing 100 percent natural gas.<sup>463</sup> A source combusting 100 percent hydrogen would have zero CO<sub>2</sub> stack emissions because hydrogen contains no carbon, as previously discussed. A source co-firing 96 percent by volume hydrogen (approximately 89 percent by heat input) would achieve an approximate 90 percent CO<sub>2</sub> emission reduction, which is roughly equivalent to the emission reduction achieved by sources utilizing 90 percent CCS.

#### (E) Promotion of the Development and Implementation of Technology

Determining co-firing 30 percent (by volume) low-GHG hydrogen by 2032 and co-firing 96 percent (by volume) to be components of the BSER would generally advance technology development in both the production of low-GHG hydrogen and the use of hydrogen in combustion turbines. This would facilitate co-firing larger amounts of low-GHG hydrogen and facilitate co-firing low-GHG hydrogen in existing combustion turbines. Developing new configurations for flame dimensions and turbine modifications to adjust for the characteristics unique to hydrogen combustion are technology forcing advancements that industry appears to be already leaning into based on the project announcements. Thus, co-firing low-GHG hydrogen fulfills the requirements of BSER to generally advance technology development. In addition, co-firing 30 percent (by volume) low-GHG hydrogen by 2032 would promote additional technology development and infrastructure to facilitate co-firing at higher amounts of low-GHG hydrogen in 2038. As discussed in the preceding section, there are multiple combustion turbine projects planned by industry to co-fire hydrogen initially and progress to firing with 100 percent hydrogen. Fueling combustion turbines with 100 percent hydrogen would eliminate all carbon

<sup>463</sup> The energy density by volume of hydrogen is lower than natural gas.

<sup>461</sup> The EIA long-term natural gas price for utilities is \$3.69/MMBtu.

<sup>462</sup> The abatement cost of co-firing low-GHG hydrogen is determined by the relative delivered cost of the low-GHG hydrogen and natural gas.

dioxide stack emissions. It would also promote reliability because it would provide grid operators with asset options, in addition to battery and energy storage, capable of voltage support and frequency regulation. These are asset characteristics that will be required in increasing capacities as more variable generation is deployed.

(F) Basis for Proposing Co-Firing Low-GHG Hydrogen, Not Other Types of Hydrogen, as the “Best” System of Emissions Reduction

In this section, the EPA explains further why the type of hydrogen co-fired as a component of the BSER must be limited to low-GHG hydrogen, and not include other types of hydrogen. The EPA explains further the proposed definition of low-GHG hydrogen as 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less from the production of hydrogen, from well-to-gate. Finally, the Agency summarizes the reasons, described above, for the proposal that co-firing 30 percent low-GHG hydrogen meets the criteria under CAA section 111 as the BSER.

(1) Limitation of Co-Firing to Low-GHG Hydrogen

Hydrogen is a zero-GHG emitting fuel when combusted, so that co-firing it in a combustion turbine in place of natural gas reduces GHG emissions at the stack. Co-firing low-emitting fuels—sometimes referred to as clean fuels—is a traditional type of emissions control, and recognized as a system of emission reduction under CAA section 111. In *West Virginia v. EPA*, the Supreme Court noted that in the EPA’s prior CAA section 111 actions, the Agency has treated “measures that improve the pollution performance of individual sources” as “system[s] of emission reduction,” 142 S. Ct. at 2615,<sup>464</sup> and further noted with approval a statement the EPA made in the Clean Power Plan that “fuel-switching” was one of the “more traditional air pollution control measures.” 142 S. Ct. at 2611 (quoting 80 FR 64784; October 23, 2015). The EPA has relied on lower-emitting fuels as the BSER in several CAA section 111 rules. See 44 FR 33580, 33593 (June 11, 1979) (coal that undergoes washing prior to its combustion to remove sulfur, so that its combustion emits fewer SO<sub>2</sub> emissions); 72 FR 32742 (June 13, 2007) (same); 80 FR 64510 (October 23, 2015) (natural gas and clean fuel oil). Co-firing hydrogen in a combustion turbine in place of natural gas reduces GHG

<sup>464</sup> As discussed in section V.B.4 of this preamble, the ACE Rule took the position that under CAA section 111(a)(1), a “system of emission reduction” must be limited to measures that apply at or to the source. 84 FR 32524 (July 8, 2019).

emissions at the source and therefore plainly qualifies as a “system of emission reduction.” This is true even if that phrase is narrowly defined to be limited to controls measures that can be applied at and to the source and that reduce emissions from the source, as the ACE Rule provided, or if it is defined more broadly.<sup>465</sup>

In the present proposal, the EPA recognizes that even though the *combustion* of hydrogen is zero-GHG emitting, its *production* entails a range of GHG emissions, from low to high, depending on the method. As noted in VII.F.3.c.v of this preamble, these differences in GHG emissions from the different methods of hydrogen production are well-recognized in the energy sector, and, in fact, hydrogen is generally characterized by its production method and the attendant level of GHG emissions.

Accordingly, the EPA is proposing to require that to qualify as the “best” system of emission reduction, the hydrogen that is co-fired must be low-GHG hydrogen, as defined above. This is because the purpose of CAA section 111 is to reduce pollution that endangers human health and welfare to the extent achievable, CAA section 111(b), through promulgation of standards of performance that reflect the “best” system of emission reduction that, taking into account certain factors, is adequately demonstrated. CAA section 111(a)(1). Co-firing hydrogen at combustion turbines when that hydrogen is produced with large amounts of GHG emissions would ultimately result in increasing overall GHG emissions, compared to combusting solely natural gas at the combustion turbine. To avoid this anomalous outcome, in evaluating a “system of emission reduction” of co-firing hydrogen, the GHG emissions from producing the hydrogen should be

<sup>465</sup> Co-firing hydrogen in place of fossil fuel (generally, natural gas in a combustion turbine) may be contrasted with co-firing biomass in place of fossil fuel (generally, coal in a steam generating unit). The ACE Rule rejected co-firing biomass as a potential BSER for existing coal-fired steam generating units. The rule explained that co-firing biomass does not meet the definition of a “system of emission reduction,” under the ACE Rule’s interpretation of that term, because co-firing biomass in place of coal at a steam generating unit does not reduce emissions emitted from that source; rather, any emission reductions rely on accounting for activities that occur upstream. 84 FR 32546 (July 8, 2019). In contrast, as discussed in the accompanying text, co-firing hydrogen in place of natural gas at a combustion turbine achieves emission reductions at the source. For that reason, co-firing hydrogen qualifies as a “system of emission reduction,” even as the ACE Rule defined the term. As noted in section V.C.3.a of this preamble, the EPA has proposed to reject that definition as too narrow.

recognized to determine whether co-firing that hydrogen is the “best” system of emission reduction, within the meaning of CAA section 111(a)(1). The EPA recognizes that the production of low-GHG hydrogen also results in fewer emissions of other air pollutants, although it also requires the use of more water, compared to other methods of producing hydrogen, in particular, ones involving methane, as discussed in section VII.F.3.c.v of this preamble. All these factors, considered together, point towards co-firing low-GHG hydrogen, and not other types of hydrogen, as the “best” system of emission reduction.

D.C. Circuit caselaw supports applying the term “best” in this manner. In several cases decided under CAA section 111(a)(1) as enacted by the 1970 CAA Amendments, which did not provide that the EPA must consider non-air quality health and environmental impacts in determining the BSER,<sup>466</sup> the court stated that the EPA must consider whether byproducts of pollution control equipment could cause environmental damage in determining whether the pollution control equipment qualified as the best system of emission reduction. See *Portland Cement Ass’n v. Ruckelshaus*, 465 F.2d 375, 385 n.42 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974) (stating that “[t]he standard of the ‘best system’ is comprehensive, and we cannot imagine that Congress intended that ‘best’ could apply to a system which did more damage to water than it prevented to air”); *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 439 (D.C. Cir. 1973) (remanding because the EPA failed to consider “the significant land or water pollution potential” from byproducts of air pollution control equipment). The situation here is analogous because a standard that allowed for co-firing with other hydrogen would create more damage (in the form of GHG emissions) than it prevented, the precise problem CAA section 111 is intended to address. Considering the overall emissions impact of the production of fuel used by the affected facility to lower its

<sup>466</sup> As enacted under the 1970 CAA Amendments, CAA section 111(a)(1) read as follows:

The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated.

In the 1977 CAA Amendments, Congress revised section 111(a)(1) to incorporate a reference to “non-air quality health and environmental impacts,” and Congress retained that phrase in the 1990 CAA Amendments when it revised CAA section 111(a)(1) to read as it currently does.

emissions—here, hydrogen—is consistent with considering the environmental impacts of the byproducts of pollution control technology used by the affected facility to lower its emissions.

In addition, the EPA's proposed determination that co-firing low-GHG hydrogen qualifies as the BSER is supported by the IRA and its legislative history. In the IRA, Congress enacted or expanded tax credits to encourage the production and use of low-GHG hydrogen.<sup>467</sup> In addition, as discussed in section IV.E.1 of this preamble, IRA section 60107 added new CAA section 135, LEEP. This provision provides \$1 million for the EPA to assess the GHG emissions reductions from changes in domestic electricity generation and use anticipated to occur annually through fiscal year 2031; and further provides \$18 million for the EPA to promulgate additional CAA rules to ensure GHG emissions reductions that go beyond the reductions expected in that assessment. CAA section 135(a)(5)–(6). The legislative history of this provision makes clear that Congress anticipated that the EPA could promulgate rules under CAA section 111(b) to ensure GHG emissions reductions from fossil fuel-fired electricity generation. 168 Cong. Rec. E879 (August 26, 2022) (statement of Rep. Frank Pallone, Jr.). The legislative history goes on to state that “Congress anticipates that EPA may consider . . . clean hydrogen as [a] candidate[] for BSER for electric generating plants. . . .” *Id.*

Most broadly, proposing that only low-GHG hydrogen qualifies as part of the co-firing BSER is required by the “reasoned decisionmaking” that the Supreme Court has long held, including recently in *Michigan v. EPA*, 576 U.S. 743 (2015), that “[f]ederal administrative agencies are required to engage in.” *Id.* at 751 (internal quotation marks omitted and citation omitted). In *Michigan*, the Court held that CAA section 112(n)(1)(A), which directs the EPA to regulate hazardous air pollutants from coal-fired power plants if the EPA “finds such regulation is appropriate and necessary,” must be interpreted to require the EPA to consider the costs of the regulation. The Court explained that if the EPA failed to consider cost, it could promulgate a regulation to

eliminate power plant emissions harmful to human health but do so through the use of technologies that “do even more damage to human health” than the emissions they eliminate. *Id.* at 752. The Court emphasized, “No regulation is ‘appropriate’ if it does significantly more harm than good.” *Id.* Here, as explained above, permitting EGUs to burn high-GHG hydrogen would “do even more damage to human health” than the emissions eliminated and therefore could not be considered “reasoned decisionmaking.” *Id.* at 751. Likewise, the Supreme Court has long said that an agency engaged in reasoned decisionmaking may not ignore “an important aspect of the problem.” *Motor Vehicles Mfrs. Ass’n v. State Farm Auto Ins. Co.*, 463 U.S. 29, 43 (1983). Permitting EGUs to burn high-GHG hydrogen to meet the standard of performance here would ignore an important aspect of the problem being addressed, contrary to reasoned decisionmaking.

The proposed standard of performance that is founded upon a BSER of burning hydrogen and the requirement that owners and operators seeking to burn hydrogen use low-GHG hydrogen are distinct requirements that could function independently. It may not be necessary to require that only low-GHG hydrogen be used to comply for owners and operators choosing this pathway included in the BSER in order to be confident that low-GHG hydrogen will be used to meet the standard. Incentives in the IRA may render production of low-GHG hydrogen less costly than higher-GHG hydrogen at some point, thus pushing the hydrogen market toward low-GHG hydrogen. In addition, the EPA may also initiate a rulemaking to regulate GHG emissions from hydrogen production under section 111 of the CAA. The EPA solicits comment on whether it is necessary to define and require low-GHG in this rulemaking. Similarly, the EPA also solicits comment as to whether the low-GHG hydrogen requirement could be treated as severable from the remainder of the standard such that the standard could function without this requirement.

#### (2) Definition of Low-GHG Hydrogen

As noted in section VII.F.3.c.vi of this preamble, the EPA proposes a definition for low-GHG hydrogen that aligns with the highest of the four tiers of tax credit available for hydrogen production, IRC section 45V(b)(2)(D). Under this provision, taxpayers are eligible for a tax credit of \$3 per kilogram of hydrogen that is produced with a GHG emissions rate of 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less, from

well-to-gate. This amount is three times higher than the amount for the next tier of credit, which is for hydrogen produced with a GHG emissions rate between 1.5 and 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub>, from well-to-gate, IRC section 45V(b)(2)(C); and four and five times higher than the amount for the next two tiers of credit, respectively. IRC section 45V(b)(2)(B), (A). With these provisions, Congress indicated its judgement as to what constitutes the lowest-GHG hydrogen production, and its intention to incentivize production of that type of hydrogen. Congress's views inform the EPA's proposal to define low-GHG hydrogen for purposes the BSER for this CAA section 111 rulemaking consistent with IRC section 45V(b)(2)(D).

It should be noted that the EPA is not proposing that the “clean hydrogen” definition in section 822 of the IJA is appropriate for the EPA's regulatory purposes. This definition is designed for a non-regulatory purpose. It sets out a non-binding goal, not a standard or a regulatory definition, intended for use in development of the DOE's CHPS and funding programs to promote promising new hydrogen technologies.

For the reasons discussed above, co-firing low-GHG hydrogen qualifies as the BSER because it is adequately demonstrated, is of reasonable cost, does not have adverse non-air quality health or environmental impacts or energy requirements—in fact, it offers potential benefits to the energy sector—and reduces GHG emissions. The fact that this control promotes the advancement of hydrogen co-firing in combustion turbines provides additional support for proposing it as part of the BSER. Finally, Congress's direction to choose the “best” system of emissions reduction and principles of reasoned decision-making dictate that the standard should be based on burning low-GHG hydrogen, and not using other forms of hydrogen.

#### 4. Other Options for BSER

The EPA considered several other systems of emission reduction as candidates for the BSER for combustion turbines, but is not proposing them as the BSER. They include CHP and the hybrid power plant, as discussed below.

##### a. Combined Heat and Power (CHP)

CHP, also known as cogeneration, is the simultaneous production of electricity and/or mechanical energy and useful thermal output from a single fuel. CHP requires less fuel to produce a given energy output, and because less fuel is burned to produce each unit of energy output, CHP has lower emission rates and can be more economic than

<sup>467</sup> These tax credits include IRC section 45V (tax credit for production of hydrogen through low- or zero-emitting processes), IRC section 48 (tax credit for investment in energy storage property, including hydrogen production), IRC section 45Q (tax credit for CO<sub>2</sub> sequestration from industrial processes, including hydrogen production); and the use of hydrogen in transportation applications, IRC section 45Z (clean fuel production tax credit), IRC section 40B (sustainable aviation fuel credit).

separate electric and thermal generation. However, a critical requirement for a CHP facility is that it primarily generates thermal output and generates electricity as a byproduct and must therefore be physically close to a thermal host that can consistently accept the useful thermal output. It can be particularly difficult to locate a thermal host with sufficiently large thermal demands such that the useful thermal output would impact the emissions rate. The refining, chemical manufacturing, pulp and paper, food processing, and district energy systems tend to have large thermal demands. However, the thermal demand at these facilities is generally only sufficient to support a smaller EGU, approximately a maximum of several hundred MW. This would limit the geographically available locations where new generation could be constructed in addition to limiting its size. Furthermore, even if a sufficiently large thermal host were in close proximity, the owner/operator of the EGU would be required to rely on the continued operation of the thermal host for the life of the EGU. If the thermal host were to shut down, the EGU could be unable to comply with the standard of performance. This reality would likely result in difficulty in securing funding for the construction of the EGU and could also lead the thermal host to demand discount pricing for the delivered useful thermal output. For these reasons, the EPA is not proposing CHP as the BSER.

#### b. Hybrid Power Plant

Hybrid power plants combine two or more forms of energy input into a single facility with an integrated mix of complementary generation methods. While there are multiple types of hybrid power plants, the most relevant type for this proposal is the integration of solar energy (*e.g.*, concentrating solar thermal) with a fossil fuel-fired EGU. Both coal-fired and NGCC EGUs have operated using the integration of concentrating solar thermal energy for use in boiler feed water heating, preheating makeup water, and/or producing steam for use in the steam turbine or to power the boiler feed pumps.

One of the benefits of integrating solar thermal with a fossil fuel-fired EGU is the lower capital and operation and maintenance (O&M) costs of the solar thermal technology. This is due to the ability to use equipment (*e.g.*, HRSG, steam turbine, condenser, *etc.*) already included at the fossil fuel-fired EGU. Another advantage is the improved electrical generation efficiency of the non-emitting generation. For example,

solar thermal often produces steam at relatively low temperatures and pressures, and the conversion of the thermal energy in the steam to electricity is relatively low. In a hybrid power plant, the lower quality steam is heated to higher temperatures and pressures in the boiler (or HSRG) prior to expansion in the steam turbine, where it produces electricity. Upgrading the relatively low-grade steam produced by the solar thermal facility in the boiler improves the relative conversion efficiencies of the solar thermal to electricity process. The primary incremental costs of the non-emitting generation in a hybrid power plant are the costs of the mirrors, additional piping, and a steam turbine that is 10 to 20 percent larger than that in a comparable fossil-only EGU to accommodate the additional steam load during sunny hours. A drawback of integrating solar thermal is that the larger steam turbine will operate at part loads and reduced efficiency when no steam is provided from the solar thermal panels (*i.e.*, the night and cloudy weather). This limits the amount of solar thermal that can be integrated into the steam cycle at a fossil fuel-fired EGU.

In the 2018 Annual Energy Outlook,<sup>468</sup> the levelized cost of concentrated solar power (CSP) without transmission costs or tax credits is \$161/MWh. Integrating solar thermal into a fossil fuel-fired EGU reduces the capital cost and O&M expenses of the CSP portion by 25 and 67 percent compared to a stand-alone CSP EGU respectively.<sup>469</sup> This results in an effective LCOE for the integrated CSP of \$104/MWh. Assuming the integrated CSP is sized to provide 10 percent of the maximum steam turbine output and the relative capacity factors of a NGCC and the CSP (those capacity factors are 65 and 25 percent, respectively) the overall annual generation due to the concentrating solar thermal would be 3 percent of the hybrid EGU output. This would result in a three percent reduction in the overall CO<sub>2</sub> emissions and a one percent increase in the LCOE, without accounting for any reduction in the steam turbine efficiency. However, these costs do not account for potential reductions in the steam turbine efficiency due to being oversized relative to a non-hybrid EGU. A 2011 technical report by the National

Renewable Energy Laboratory (NREL) cited analyses indicating solar-augmentation of fossil power stations is not cost-effective, although likely less expensive and containing less project risk than a stand-alone solar thermal plant. Similarly, while commenters stated that solar augmentation has been successfully integrated at coal-fired plants to improve overall unit efficiency, commenters did not provide any new information on costs or indicate that such augmentation is cost-effective. The EPA is soliciting comment on updated costs for hybrid power plants and if the use of hybrid power plants could be incorporated as part of the BSER for base load combustion turbines.

In addition, solar thermal facilities require locations with abundant sunshine and significant land area in order to collect the thermal energy. Existing concentrated solar power projects in the U.S. are primarily located in California, Arizona, and Nevada with smaller projects in Florida, Hawaii, Utah, and Colorado. NREL's 2011 technical report on the solar-augment potential of fossil-fired power plants examined regions of the U.S. with "good solar resource as defined by their direct normal insolation (DNI)" and identified sixteen States as meeting that criterion: Alabama, Arizona, California, Colorado, Florida, Georgia, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Utah. The technical report explained that annual average DNI has a significant effect on the performance of a solar-augmented fossil plant, with higher average DNI translating into the ability of a hybrid power plant to produce more steam for augmenting the plant. The technical report used a points-based system and assigned the most points for high solar resource values. An examination of a NREL-generated DNI map of the U.S. reveals that States with the highest DNI values are located in the southwestern U.S., with only portions of Arizona, California, Nevada, New Mexico, and Texas (plus Hawaii) having solar resources that would have been assigned the highest points by the NREL technical report (7 kWh/m<sup>2</sup>/day or greater).

The EPA is not proposing hybrid power plants as the BSER because of gaps in the EPA's knowledge about costs, and concerns about the cost-effectiveness of the technology, as noted above.

#### 5. Subcategories

Stationary combustion turbines are defined in the 2015 NSPS to include

<sup>468</sup> EIA, Annual Energy Outlook 2018, February 6, 2018. <https://www.eia.gov/outlooks/aeo/>.

<sup>469</sup> B. Alqahtani and D. Patiño-Echeverri, Duke University, Nicholas School of the Environment, "Integrated Solar Combined Cycle Power Plants: Paving the Way for Thermal Solar," Applied Energy 169:927–936 (2016).

both simple cycle and combined cycle EGUs. In addition, 40 CFR part 60, subpart TTTT includes three subcategories for combustion turbines—natural gas-fired base load EGUs, natural gas-fired non-base load EGUs, and multi-fuel-fired EGUs. Base load EGUs are those that sell electricity in excess of the site-specific electric sales threshold to an electric distribution network on both a 12-operating-month and 3-year rolling average basis. Non-base load EGUs are those that sell electricity at or less than the site-specific electric sales threshold to an electric distribution network on both a 12-operating-month and 3-year rolling average basis. Multi-fuel-fired EGUs combust 10 percent or more (by heat input) of fuels not meeting the definition of natural gas on a 12-operating-month rolling average basis.

#### a. Legal Basis for Subcategorization

As noted in section V.C.1, CAA section 111(b)(2) provides that the EPA “may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing . . . standards [of performance].” The D.C. Circuit has held that the EPA has broad discretion in determining whether and how to subcategorize under CAA section 111(b)(2). *Lignite Energy Council*, 198 F3d at 933. As also noted in section V.C.1, in prior CAA section 111 rules, the EPA has subcategorized on numerous bases, including, among other things, fuel type and load.

#### b. Electric Sales Subcategorization (Low, Intermediate, and Base Load Combustion Turbines)

As noted earlier, in the 2015 NSPS, the EPA established separate standards for natural gas-fired base load and non-base load stationary combustion turbines. The electric sales threshold distinguishing the two subcategories is based on the design efficiency of individual combustion turbines. A combustion turbine qualifies as a non-base load turbine, and is thus subject to a less stringent standard of performance, if it has net electric sales equal to or less than the design efficiency of the turbine (not to exceed 50 percent) multiplied by the potential electric output (80 FR 64601; October 23, 2015). If the net electric sales exceed that level on both a 12-operating month and 3 calendar year basis, then the combustion turbine is in the base load combustion subcategory and is subject to a more stringent standard of performance. Subcategory applicability can change on a month-to-month basis since applicability is determined each operating month. For additional

discussion on this approach, see the 2015 NSPS (80 FR 64609–12; October 23, 2015). The 2015 NSPS non-base load subcategory is broad and includes combustion turbines that assure grid reliability by providing electricity during periods of peak electric demand. These peaking turbines tend to have low annual capacity factors and sell a small amount of their potential electric output. The non-base load subcategory in the 2015 NSPS also includes combustion turbines that operate at intermediate annual capacity factors but are not considered base load EGUs. These intermediate load EGUs provide a variety of services, including providing dispatchable power to support variable generation from renewable sources of electricity. The need for this service has been expanding as the amount of electricity from wind and solar continues to grow. In the 2015 NSPS, the EPA determined the BSER for the non-base load subcategory to be the use of lower emitting fuels (e.g., natural gas and Nos. 1 and 2 fuel oils). In 2015, the EPA explained that efficient generation did not qualify as the BSER due in part to the challenge of determining an achievable output-based CO<sub>2</sub> emissions rate for all combustion turbines in this subcategory.

In this action, the EPA is proposing changes to the subcategories in 40 CFR part 60, subpart TTTT<sup>a</sup> that will be applicable to sources that commence construction or reconstruction after the date of this proposed rulemaking. First, the Agency is proposing the definition of design efficiency so that the heat input calculation of an EGU is based on the higher heating value (HHV) of the fuel instead of the lower heating value (LHV), as explained immediately below. It is important to note that this would have the effect of lowering the electric sales threshold. In addition, the EPA is proposing to further divide the non-base load subcategory into separate intermediate and low load subcategories.

#### i. Higher Heating Value as the Basis for Calculation of the Design Efficiency

The *heat rate* is the amount of energy used by an EGU to generate one kWh of electricity and is often provided in units of Btu/kWh. As the thermal efficiency of a combustion turbine EGU is increased, less fuel is burned per kWh generated and there is a corresponding decrease in emissions of CO<sub>2</sub> and other air pollutants. The electric energy output as a fraction of the fuel energy input expressed as a percentage is a common practice for reporting the unit’s efficiency. The greater the output of electric energy for a given amount of

fuel energy input, the higher the efficiency of the electric generation process. Lower heat rates are associated with more efficient power generating plants.

Efficiency can be calculated using the HHV or the LHV of the fuel. The HHV is the heating value directly determined by calorimetric measurement of the fuel in the laboratory. The LHV is calculated using a formula to account for the moisture in the combustion gas (*i.e.*, subtracting the energy required to vaporize the water in the flue gas) and is a lower value than the HHV. Consequently, the HHV efficiency for a given EGU is always lower than the corresponding LHV efficiency because the reported heat input for the HHV is larger. For U.S. pipeline natural gas, the HHV heating value is approximately 10 percent higher than the corresponding LHV heating value and varies slightly based on the actual constituent composition of the natural gas.<sup>470</sup> The EPA default is to reference all technologies on a HHV basis,<sup>471</sup> and the Agency is proposing to base the heat input calculation of an EGU on HHV for purposes of the definition of design efficiency. However, it should be recognized that manufacturers of combustion turbines typically use the LHV to express the efficiency of combustion turbines.<sup>472</sup>

Similarly, the electric energy output for an EGU can be expressed as either of two measured values. One value relates to the amount of total electric power generated by the EGU, or *gross* output. However, a portion of this electricity must be used by the EGU facility to operate the unit, including compressors, pumps, fans, electric motors, and pollution control equipment. This within-facility electrical demand, often referred to as the parasitic load or auxiliary load, reduces the amount of power that can be delivered to the transmission grid for distribution and sale to customers. Consequently, electric energy output may also be expressed in terms of *net*

<sup>470</sup> The HHV of natural gas is 1.108 times the LHV of natural gas. Therefore, the HHV efficiency is equal to the LHV efficiency divided by 1.108. For example, an EGU with a LHV efficiency of 59.4 percent is equal to a HHV efficiency of 53.6 percent. The HHV/LHV ratio is dependent on the composition of the natural gas (*i.e.*, the percentage of each chemical species (e.g., methane, ethane, propane, *etc.*)) within the pipeline and will slightly move the ratio.

<sup>471</sup> Natural gas is also sold on a HHV basis.

<sup>472</sup> European plants tend to report thermal efficiency based on the LHV of the fuel rather than the HHV for both combustion turbines and steam generating EGUs. In the U.S., boiler efficiency is typically reported on a HHV basis.

output, which reflects the EGU gross output minus its parasitic load.<sup>473</sup>

When using efficiency to compare the effectiveness of different combustion turbine EGU configurations and the applicable GHG emissions control technologies, it is important to ensure that all efficiencies are calculated using the same type of heating value (*i.e.*, HHV or LHV) and the same basis of electric energy output (*i.e.*, MWh-gross or MWh-net). Most emissions data are available on a gross output basis and the EPA is proposing output-based standards based on gross output. However, to recognize the superior environmental benefit of minimizing auxiliary/parasitic loads, the Agency is proposing to include optional equivalent standards on a net output basis. To convert from gross to net-output based standards, the EPA used a 1 percent auxiliary load for simple cycle turbines, a 2 percent auxiliary load for combined cycle turbines, and a 7 percent auxiliary load for combined cycle EGUs using 90 percent CCS.

ii. Lowering the Threshold Between the Base Load and Non-Base Load Subcategories

The subpart TTTT distinction between a base load and non-base load combustion turbine is determined by the unit's actual electric sales relative to its potential electric sales, assuming the EGU is operated continuously (*i.e.*, percent electric sales). Specifically, stationary combustion turbines are categorized as non-base load and are subsequently subject to a less stringent standard of performance, if they have net electric sales equal to or less than their design efficiency (not to exceed 50 percent) multiplied by their potential electric output (80 FR 64601; October 23, 2015). Because the electric sales threshold is based in part on the design efficiency of the EGU, more efficient combustion turbine EGUs can sell a higher percentage of their potential electric output while remaining in the non-base load subcategory. This approach recognizes both the environmental benefit of combustion turbines with higher design efficiencies and provides flexibility to the regulated

community. In the 2015 NSPS, it was unclear how often high-efficiency simple cycle EGUs would be called upon to support increased generation from variable renewable generating resources. Therefore, the Agency determined it was appropriate to provide maximum flexibility to the regulated community. To do this, the Agency based the numeric value of the design efficiency, which is used to calculate the electric sales threshold, on the LHV efficiency. This had the impact of allowing combustion turbines to sell a greater share of their potential electric output while remaining in the non-base load subcategory.

For the reasons noted below, the EPA is proposing in 40 CFR part 60, subpart TTTT that the design efficiency be based on the HHV efficiency instead of LHV efficiency and that the 50 percent maximum and 33 percent minimum restriction not be included. When determining the potential electric output used in calculating the electric sales threshold in 40 CFR part 60, subpart TTTT, design efficiencies of greater than 50 percent are reduced to 50 percent and design efficiencies of less than 33 percent are increased to 33 percent for determining electric sales threshold subcategorization criteria. The 50 percent criterion was established to limit non-base load EGUs from selling greater than 55 percent of their potential electric sales.<sup>474</sup> The 33 percent criterion is included to be consistent with applicability thresholds in the electric utility criteria pollutant NSPS (40 CFR part 60, subpart Da). Neither of those criteria are appropriate for 40 CFR part 60, subpart TTTT, and the EPA is not proposing that they be used to determine the electric sales threshold. By basing the electric sales threshold on the HHV design efficiency, the 50 percent restriction is no longer appropriate because currently available combined cycle designs operating as intermediate load combustion turbines would be limited to selling 55 percent of their potential electric output. If this restriction were maintained, it would reduce the regulatory incentive for manufacturers to invest in programs to develop higher efficiency combustion turbines. The EPA is also proposing to eliminate the 33 percent minimum design efficiency in the calculation of the potential electric output. The EPA is

unaware of any new combustion turbines with design efficiencies of less than 33 percent; and this will likely have no cost or emissions impact. However, this provides assurance that new combustion turbines will maximize design efficiencies. Because of this relationship between the electric sales threshold and the design efficiency of an individual EGU, the proposed definition of design efficiency would have the effect of lowering the electric sales threshold between the base load and non-base load subcategories. For combined cycle EGUs, the current base load electric sales threshold is 55 percent. Proposing the definition of the design efficiency to be based on HHV would make the base load electric sales threshold for combined cycle EGUs between 46 and 55 percent.<sup>475</sup> The current electric sales threshold for simple cycle turbines (*i.e.*, non-base load) peaks in a range of 40 to 49 percent of potential electric sales. Under the proposed definition, simple cycle turbines would be able to sell no more than between 33 and 40 percent of their potential electric output without moving into the base load subcategory. A design efficiency definition based on the HHV will have the effect of decreasing the electric sales threshold in relative terms by 19 percent and absolute terms by 7 to 9 percent.<sup>476</sup> The EPA is soliciting comment on whether the intermediate/base load electric sales threshold should be reduced further. The EPA is considering a range that would lower the base load electric sales threshold for simple cycle combustion turbines to between 29 to 35 percent (depending on the design efficiency) and to between 40 to 49 percent for combined cycle combustion turbines (depending on the design efficiency). This would be equivalent to reducing the design efficiency by 6 percent (*e.g.*, multiplying by 0.94) when determining the electric sales threshold.

The EPA determined that proposing to lower the electric sales threshold is appropriate for new combustion turbines because, as will be discussed later, the first component of BSER for both intermediate load and base load turbines is based on highly efficient generation. Combined cycle units are significantly more efficient than simple cycle turbines; and therefore, in general,

<sup>473</sup> It is important to note that net output values reflect the net output delivered to the electric grid and not the net output delivered to the end user. Electricity is lost as it is transmitted from the point of generation to the end user and these "line losses" increase the farther the power is transmitted. 40 CFR part 60, subpart TTTT provides a way to account for the environmental benefit of reduced line losses by crediting CHP EGUs, which are typically located close to large electric load centers. See 40 CFR 60.5540(a)(5)(i) and the definitions of gross energy output and net energy output in 40 CFR 60.5580.

<sup>474</sup> While the design efficiency is capped at 50 percent on a LHV basis, the base load rating (maximum heat input of the combustion turbine) is on a HHV basis. This mixture of LHV and HHV results in the electric sales threshold being 11 percent higher than the design efficiency. The design efficiency of all new combined cycle EGUs exceed 50 percent on a LHV basis.

<sup>475</sup> The electric sales threshold for combined cycle EGUs with the highest design efficiencies would remain at 55 percent.

<sup>476</sup> The design efficiency appears twice in the equation used to determine the electric sales threshold. Amending the design efficiency to use the HHV numeric value results in a larger reduction in the electric sales threshold than the difference between the HHV and LHV design efficiency.

the EPA should be focusing its determination of the BSER for base load units on that more efficient technology. In the 2015 NSPS, the EPA used a higher sales threshold because of the argument that less efficient simple cycle turbine technology served a unique role that could not be served by more efficient combined cycle technology. At the time, the EPA determined that a BSER based exclusively on that more efficient technology could exclude the building of simple cycle turbines that are needed to maintain electric reliability. With improvements to the ramp rates for combined cycle units and with integrated renewable/energy storage projects becoming more common, these less efficient simple cycle turbines are no longer the only technology that can serve this purpose. Further, as EGUs operate more, they have more hours of steady state operation relative to hours of startup/cycling. Amending the electric sales threshold would result in GHG reductions by assuring that the most efficient generating and lowest emitting combustion turbine technology is used for each subcategory. Therefore, the proposed change to calculate the design efficiency on a HHV basis will result in additional emission reductions at reasonable costs.

Based on EIA 2022 model plants, combined cycle EGUs have a lower levelized cost of electricity (LCOE) at capacity factors above approximately 40 percent compared to simple cycle EGUs operating at the same capacity factors. This supports the proposed base load electric threshold of 40 percent for simple cycle turbines because it would be cost effective for owners/operators of simple cycle turbines to add heat recovery if they elected to operate their unit as a base load unit. Furthermore, based on an analysis of monthly emission rates, recently constructed combined cycle EGUs maintain a 12-operating-month emissions rates at 12-operating-month capacity factors of less than 55 percent (the base load electric sales threshold in subpart TTTT) relative to operation at higher capacity factors. Therefore, the base load subcategory operating range could be expanded in subpart TTTTa without impacting the stringency of the numeric standard. However, at 12-operating-month capacity factors of less than approximately 50 percent, emission rates of combined cycle EGUs increase relative to operation at a higher capacity factor. It takes longer for a HRSG to begin producing steam that can be used to generate additional electricity than the time it takes a combustion engine to

reach full power. Under operating conditions with a significant number of starts and stops, typical of intermediate and especially low load combustion turbines, there may not be enough time for the HRSG to generate steam that can be used for additional electrical generation. To maximize overall efficiency, combined cycle EGUs often use combustion turbine engines that are less efficient than the most efficient simple cycle combustion turbine engines. Under operating conditions with frequent starts and stops where the HRSG does not have sufficient time to begin generating additional electricity, a combined cycle EGU may be no more efficient than a highly efficient simple cycle EGU. Above capacity factors of approximately 40 percent, the average run time per start for combined cycle EGUs tends to increase significantly and the HRSG would be available to contribute additional electric generation. For more information on the impact of capacity factors on the emission rates of combined cycle EGUs see the *Efficient Generation at Combustion Turbine Electric Generating Units* TSD, which is available in the rulemaking docket.

After the 2015 NSPS was finalized, some stakeholders expressed concerns about the approach for distinguishing between base load and non-base load turbines. They posited a scenario in which increased utilization of wind and solar resources, combined with low natural gas prices, would create the need for certain types of simple cycle turbines to operate for longer time periods than had been contemplated when the 2015 NSPS was being developed. Specifically, stakeholders have claimed that in some regional electricity markets with large amounts of variable renewable generation, some of the most efficient new simple cycle turbines—aeroderivative turbines—could be called on to operate at capacity factors greater than their design efficiency. However, if those new simple cycle turbines were to operate at those higher capacity factors, they would become subject to the more stringent standard of performance for base load turbines. As a result, according to these stakeholders, the new aeroderivative turbines would have to curtail their generation and instead, less-efficient existing turbines would be called upon to run by the regional grid operators, which would result in overall higher emissions. The EPA evaluated the operation of simple cycle turbines in areas of the country with relatively large amounts of variable renewable generation and did not find a strong

correlation between the percentage of generation from the renewable sources and the 12-operating-month capacity factors of simple cycle turbines. In addition, the vast majority of simple cycle turbines that commenced operation between 2010 and 2016 (the most recent simple cycle combustion turbines not subject to 40 CFR part 60, subpart TTTT) have operated well below the base load electric sales threshold in 40 CFR part 60, subpart TTTT. Therefore, the Agency does not believe that the concerns expressed by stakeholders necessitates any revisions to the regulatory scheme. In fact, as noted above, the EPA is proposing that the electric sales threshold can be lowered without impairing the availability of simple cycle turbines where needed, including to support the integration of variable generation. The EPA believes that the proposed threshold is not overly restrictive since a simple cycle turbine could operate on average for more than 8 hours a day.

### iii. Low and Intermediate Load Subcategories

The EPA is proposing in 40 CFR part 60, subpart TTTTa to create a low load subcategory to include combustion turbines that operate only during periods of peak electric demand (*i.e.*, peaking units) which would be separate from the intermediate load subcategory. Low load combustion turbines also provide ramping capability and other ancillary serves to support grid reliability. The EPA evaluated the operation of recently constructed simple cycle turbines to understand how they operate and to determine at what electric sales level or capacity factor their emissions rate is relatively steady. (Note that for purposes of this discussion, we use the terms “electric sales” and “capacity factor” interchangeably.) Peaking units only operate for short periods of time and potentially at relatively low duty cycles.<sup>477</sup> This type of operation reduces the efficiency and increases the emissions rate, regardless of the design efficiency of the combustion turbine or how it is maintained. For this reason, it is difficult to establish a reasonable output-based standard of performance for peaking units.

To determine the electric sales threshold—that is, to distinguish

<sup>477</sup> The duty cycle is the average operating capacity factor. For example, if an EGU operates at 75 percent of the fully rated capacity, the duty cycle would be 75 percent regardless of how often the EGU actually operates. The capacity factor is a measure of how much an EGU is operated relative to how much it could potentially have been operated.



between the intermediate load and low load subcategories—the EPA evaluated capacity factor electric sales thresholds of 10 percent, 15 percent, 20 percent, and 25 percent. The EPA found the 10 percent level problematic for two reasons. First, simple cycle combustion turbines operating at that level or lower have highly variable emission rates, and therefore it would be difficult for the EPA to establish a meaningful output-based standard of performance. In addition, only one-third of simple cycle turbines that have commenced operation since 2015 have maintained 12-operating-month capacity factors of less than 10 percent. Therefore, setting the threshold at this level would bring most new simple cycle turbines into the intermediate load subcategory, which would subject them to a more stringent emission rate which is only achievable for simple cycle combustion turbines operating at higher capacity factors. This could create a situation where simple cycle turbines might not be able to comply with the intermediate load standard of performance while operating at the low end of the intermediate load capacity factor subcategorization criteria.

Importantly, based on the EPA's review of hourly emissions data, above a 15 percent capacity factor, GHG emission rates for many simple cycle combustion turbines begin to stabilize, see the *Simple Cycle Stationary Combustion Turbine EGUs* TSD, which is available in the rulemaking docket. At higher capacity factors, more time is typically spent at steady state operation rather than ramping up and down; and, emission rates tend to be lower while in steady state operation. Approximately 60 percent of recently constructed simple cycle turbines have maintained 12-operating-month capacity factors of 15 percent or less while two-thirds of recently constructed simple cycle turbines have operated at capacity factors of 20 percent or less; and, the emission rates clearly stabilize for the majority of simple cycle turbines operating at capacity factors of greater than 20 percent. Nearly 80 percent of recently constructed simple cycle turbines maintain maximum 12-operating-month capacity factors of 25 percent or less. Based on this information, the EPA is proposing the low load electric sales threshold—again, the dividing line to distinguish between the intermediate- and low-load subcategories—to be 20 percent and is soliciting comment on a range of 15 to 25 percent. The EPA is also soliciting comment on whether the low load electric sales threshold should be

determined by a site-specific threshold based on three quarters of the design efficiency of the combustion turbine.<sup>478</sup> Under this approach, simple cycle combustion turbines selling less than 18 to 22 percent of their potential electric output (depending on the design efficiency) would still be considered low load combustion turbines. This “sliding scale” electric sales threshold approach is similar to the approach the EPA used in the 2015 NSPS to recognize the environmental benefit of installing the most efficient combustion turbines for low load applications. Using this approach, combined cycle EGUs would be able to sell between 26 to 31 percent of their potential electric output while still being considered low load combustion turbines.

Placing low load and intermediate load combustion turbines into separate subcategories is consistent with how these units are operated and how emissions from these units can be quantified and controlled. Consistent with the 2015 NSPS, the BSER analysis for base load combustion turbine EGUs assumes the use of combined cycle technology and the BSER analysis for intermediate and low load combustion turbine EGUs assumes the use of simple cycle technology. However, the Agency notes that combined cycle EGUs can elect to operate at lower levels of electric sales and be classified as intermediate or peaking EGUs. In this case, owners/operators of combined cycle EGUs would be required to comply with the standards of performance for intermediate or peaking EGUs.

#### c. Multi-Fuel-Fired Combustion Turbines

40 CFR part 60, subpart TTTT subcategorizes multi-fuel-fired combustion turbines as EGUs that combust 10 percent or more of fuels not meeting the definition of natural gas on a 12-operating-month rolling average basis. The BSER for this subcategory is the use of lower emitting fuels with a corresponding heat input-based standard of performance of 120 to 160 lb CO<sub>2</sub>/MMBtu, depending on the fuel, for newly constructed and reconstructed multi-fuel-fired stationary combustion turbines.<sup>479</sup> Lower emitting fuels for

<sup>478</sup> The calculation used to determine the electric sales threshold includes both the design efficiency and the base load rating. Since the base load rating stays the same when adjusting the numeric value of the design efficiency for applicability purposes, adjustments to the design efficiency has twice the impact. Specifically, using three quarters of the design efficiency reduces the electric sales threshold by half.

<sup>479</sup> Combustion turbines co-firing natural gas with other fuels must determine fuel-based site-specific

these units include natural gas, ethylene, propane, naphtha, jet fuel kerosene, Nos. 1 and 2 fuel oils, biodiesel, and landfill gas. The definition of natural gas in 40 CFR part 60, subpart TTTT includes fuel that maintains a gaseous state at ISO conditions, is composed of 70 percent by volume or more methane, and has a heating value of between 35 and 41 megajoules (MJ) per dry standard cubic meter (dscm, m<sup>3</sup>) (950 and 1,100 British thermal units (Btu) per dry standard cubic foot). Natural gas typically contains 95 percent methane and has a heating value of 1,050 Btu/lb.<sup>480</sup> A potential issue with the multi-fuel subcategory is that owners/operators of simple cycle turbines can elect to burn 10 percent non-natural gas fuels, such as Nos. 1 or 2 fuel oil, and thereby remain in that subcategory, regardless of their electric sales. As a result, they would remain subject to the less stringent standard that applies to multi-fuel-fired sources, the lower emitting fuels standard. This could allow less efficient combustion turbine designs to operate as base load units without having to improve efficiency and could allow EGUs to avoid the need for efficient design or best operating and maintenance practices. These potential circumventions would result in higher GHG emissions.

To avoid these concerns, the EPA is proposing to eliminate the multi-fuel subcategory for low, intermediate, and base load combustion turbines in 40 CFR part 60, subpart TTTT. This would mean that new multi-fuel-fired turbines that commence construction or reconstruction after the date of this proposal will fall within a particular subcategory depending on their level of electric sales. The EPA also proposes that the performance standards for each subcategory be adjusted appropriately for multi-fuel-fired turbines to reflect the application of the BSER for the subcategories to turbines burning fuels with higher GHG emission rates than natural gas. To be consistent with the definition of lower emitting fuels in the 2015 Rule, the maximum allowable heat input-based emissions rate would be 160 lb CO<sub>2</sub>/MMBtu. For example, a standard of performance based on efficient generation would be 33 percent

standards at the end of each operating month. The site-specific standards depend on the amount of co-fired natural gas. 80 FR 64616 (October 23, 2015).

<sup>480</sup> Note that 40 CFR part 60, subpart TTTT combustion turbines co-firing 25 percent hydrogen by volume could be subcategorized as multi-fuel-fired EGUs because the percent methane by volume could fall below 70 percent, the heating value could fall below 35 MJ/Sm<sup>3</sup>, and 10 percent of the heat input could be coming from a fuel not meeting the definition of natural gas.

higher for a fuel oil-fired combustion turbine compared to a natural gas-fired combustion turbine. This would assure that the BSER, in this case efficient generation, is applied, while at the same time accounting for the use of multiple

fuels. As explained in section VII.F, in the second phase of the NSPS, the EPA is proposing to further subcategorize base load combustion turbines based on whether the combustion turbine is combusting hydrogen. During the first

phase of the NSPS, all base load combustion turbines would be in a single subcategory. Table 2 summarizes the proposed electric sales subcategories for combustion turbines.

TABLE 2—PROPOSED SALES THRESHOLDS FOR SUBCATEGORIES OF COMBUSTION TURBINE EGUS

Subcategory	Electric sales threshold (percent of potential electric sales)
Low Load .....	≤20 percent.
Intermediate Load .....	>20 percent and ≤site-specific value determined based on the design efficiency of the affected facility. <ul style="list-style-type: none"> <li>• Between ~ 33 to 40 percent for simple cycle combustion turbines.</li> <li>• Between ~ 45 to 55 percent for combined cycle combustion turbines.</li> </ul>
Base Load .....	>Site-specific value determined based on the design efficiency of the affected facility. <ul style="list-style-type: none"> <li>• Between ~ 33 to 40 percent for simple cycle combustion turbines.</li> <li>• Between ~ 45 to 55 percent for combined cycle combustion turbines.</li> </ul>

*G. Proposed Standards of Performance*

Once the EPA has determined that a particular system or technology represents BSER, the CAA authorizes the Administrator to establish standards of performance for new units that reflect the degree of emission limitation achievable through the application of that BSER. As noted above, the EPA proposes that because the technology for reducing GHG emissions from combustion turbines is advancing rapidly, a multi-phase set of standards of performance, which reflect a multi-component BSER, is appropriate for base load and intermediate load combustion turbines. Under this approach, for the first phase of the standards, which applies as of the effective date the final rule, the BSER is highly efficient generation for both base load and intermediate load combustion turbines. During this phase, owners/operators of EGUs will be subject to a numeric standard of performance that is representative of the performance of the best performing EGUs in the subcategory. For the second phase of the standards, beginning in 2032 and 2035 respectively, the BSER for base load turbines includes either 30 percent low-GHG hydrogen co-firing or 90 percent capture CCS, and beginning in 2032 the BSER for intermediate load EGUs includes 30 percent low-GHG hydrogen co-firing. The affected EGUs would be subject to either an emissions rate that reflects continued use of highly efficient generation coupled with CCS, or one that reflects continued use of highly efficient generation coupled with co-firing low-GHG hydrogen. For the third phase of the standards, beginning in 2038 for base load turbines that began co-firing 30 percent low-GHG hydrogen in 2032, the BSER includes co-firing 96 percent low-GHG hydrogen. In addition, the EPA is proposing a single

component BSER, applicable from the date of proposal, for low load combustion turbines.

1. Phase-1 Standards

The first component of the BSER is the use of highly efficient combined cycle technology for base load EGUs in combination with the best operating and maintenance practices, the use of highly efficient simple cycle technology in combination with the best operating and maintenance practices for intermediate load EGUs, and the use of lower emitting fuels for low load EGUs.

For new and reconstructed natural gas-fired base load combustion turbine EGUs, the EPA proposes to find that the most efficient available combined cycle technology—which qualifies as the BSER for base load combustion turbines—supports a standard of 770 lb CO<sub>2</sub>/MWh-gross for large natural gas-fired EGUs (*i.e.*, those with a nameplate heat input greater than 2,000 MMBtu/h) and 900 lb CO<sub>2</sub>/MWh-gross for natural gas-fired small EGUs (*i.e.*, those with a nameplate base load rating of 250 MMBtu/h). The proposed standard of performance for natural gas-fired base load EGUs with base load ratings between 250 MMBtu/h and 2,000 MMBtu/h would be between 900 and 770 lb CO<sub>2</sub>/MWh-gross and be determined based on the base load rating of the combustion turbine.<sup>481</sup> The EPA proposes to find that the most efficient available simple cycle technology—which qualifies as the

BSER for intermediate load combustion turbines—supports a standard of 1,150 lb CO<sub>2</sub>/MWh-gross for natural gas-fired EGUs. For new and reconstructed low load combustion turbines, the EPA proposes to find that the use of lower emitting fuels—which qualifies as the BSER—supports a standard that ranges from 120 lb CO<sub>2</sub>/MMBtu to 160 lb CO<sub>2</sub>/MMBtu depending on the fuel burned. The EPA proposes these standards to apply at all times and compliance to be determined on a 12-operating-month rolling average basis.

The EPA has determined that these standards of performance are achievable specifically for natural gas-fired base load and intermediate load combustion turbine EGUs. However, combustion turbine EGUs burn a variety of fuels, including fuel oil during natural gas curtailments. Owners/operators of combustion turbines burning fuels other than natural gas would not necessarily be able to comply with the proposed standards for base load and intermediate load natural gas-fired combustion turbines using highly efficient generation. Therefore, the Agency is proposing that owners/operators of combustion turbines burning fuels other than natural gas may elect to use the ratio of the heat input-based emissions rate of the specific fuel(s) burned to the heat input-based emissions rate of natural gas to determine a site-specific standard of performance for the operating period. For example, the NSPS emissions rate for a large base load combustion turbine burning 100 percent distillate oil during the 12-operating month period would be 1,070 lb CO<sub>2</sub>/MWh-gross.<sup>482</sup>

<sup>481</sup> A new small natural gas-fired base load EGU would determine the facility emissions rate by taking the difference in the base load rating and 250 MMBtu/h, multiplying that number by 0.0743 lb CO<sub>2</sub>/(MW \* MMBtu), and subtracting that number from 900 lb CO<sub>2</sub>/MWh-gross. The emissions rate for a NGCC EGU with a base load rating of 1,000 MMBtu/h is 900 lb CO<sub>2</sub>/MWh-gross minus 750 MMBtu/h (1,000 MMBtu/h – 250 MMBtu/h) times 0.0743 lb CO<sub>2</sub>/(MW \* MMBtu), which results in an emissions rate of 844 lb CO<sub>2</sub>/MWh-gross.

<sup>482</sup> The heat input-based emission rates of natural gas and distillate oil are 117 and 163 lb CO<sub>2</sub>/MMBtu, respectively. The ratio of the heat input-based emission rates (1.39) is multiplied by the natural gas-fired standard of performance (770 lb

To determine what emission rates are currently achieved by existing high-efficiency combined cycle EGUs and simple cycle EGUs, the EPA reviewed 12-operating-month generation and CO<sub>2</sub> emissions data from 2015 through 2021 for all combined and simple cycle EGUs that submitted continuous emissions monitoring system (CEMS) data to the EPA's emissions collection and monitoring plan system (ECMPS). The data were sorted by the lowest maximum 12-operating-month emissions rate for each unit to identify long-term emission rates on a lb CO<sub>2</sub>/MWh-gross basis that have been demonstrated by the existing combined cycle and simple cycle EGU fleets. Since an NSPS is a never-to-exceed standard, the EPA is proposing that use of long-term data are more appropriate than shorter term data in determining an achievable standard. These long-term averages account for degradation and variable operating conditions, and the EGUs should be able to maintain their current emission rates, as long as the units are properly maintained. While annual emission rates indicate a particular standard is achievable for certain EGUs in the short term, they are not necessarily representative of emission rates that can be maintained over an extended period using highly efficient generating technology in combination with best operating and maintenance practices.

To determine the 12-operating-month average emissions rate that is achievable by application of the BSER, the EPA calculated 12-month CO<sub>2</sub> emission rates by dividing the sum of the CO<sub>2</sub> emissions by the sum of the gross electrical energy output over the same period. The EPA did this separately for combined cycle EGUs and simple cycle EGUs to determine the emissions rate for the base load and intermediate load subcategories, respectively.

For base load combustion turbines, the EPA evaluated three emission rates: 730, 770, and 800 lb CO<sub>2</sub>/MWh-gross. An emissions rate of 730 lb CO<sub>2</sub>/MWh-gross has been demonstrated by a single combined cycle facility—the Okeechobee Clean Energy Center. This facility is a large 3-on-1 combined cycle EGU that commenced operation in 2019 and uses a recirculating cooling tower for the steam cycle. Each turbine is rated at 380 MW and the three HRSGs feed a single steam turbine of 550 MW. The EPA is not proposing to use the emissions rate of this EGU to determine the standard of performance, for multiple reasons. The Okeechobee

Clean Energy Center uses a 3-on-1 multi-shaft configuration but, many combined cycle EGUs use a 1-on-1 configuration. Combined cycle EGUs using a 1-on-1 configuration can be designed such that both the combustion turbine and steam turbine are arranged on one shaft and drive the same generator. This configuration has potential capital cost and maintenance costs savings and a smaller plant footprint that can be particularly important for combustion turbines enclosed in a building. In addition, a single shaft configuration has higher net efficiencies when operated at part load than a multi-shaft configuration. Basing the standard of performance on the performance of multi-shaft combined cycle EGUs could limit the ability of owners/operators to construct new combined cycle EGUs in space-constrained areas (typically urban areas<sup>483</sup>) and combined cycle EGUs with the best performance when operated as intermediate load EGUs.<sup>484</sup> Either of these outcomes could result in greater overall emissions from the power sector. An advantage of multi-shaft (2-on-1 and 3-on-1) configurations is that the turbine engine can be installed initially and run as a simple cycle EGU, with the HRSG and steam turbines added at a later date, all of which allows for more flexibility for the regulated community. In addition, a single large steam turbine can generate electricity more efficiently than multiple smaller steam turbines, increasing the overall efficiency of comparably sized combined cycle EGUs. According to Gas Turbine World 2021, multi-shaft combined cycle EGUs have design efficiencies that are 0.7 percent higher than single shaft combined cycle EGUs using the same turbine engine.<sup>485</sup>

The efficiency of the Rankine cycle (*i.e.*, HRSG plus the steam turbine) is determined in part by the ability to cool the working fluid (*e.g.*, steam) after it has been expanded through the turbine. All else equal, the lower the

temperature that can be achieved, the more efficient the Rankine cycle. The Okeechobee Clean Energy Center used a recirculating cooling system, which can achieve lower temperatures than EGUs using dry cooling systems and therefore would be more efficient and have a lower emissions rate. However dry cooling systems have lower water requirements and therefore could be the preferred technology in arid regions or in areas where water requirements could have significant ecological impacts. Therefore, the EPA proposes that the efficient generation standard for base load EGUs should account for the use of dry cooling.

Finally, the Okeechobee Clean Energy Center is a relatively new EGU and full efficiency degradation might not be accounted for in the emissions analysis. Therefore, the EPA is not proposing that an emissions rate of 730 lb CO<sub>2</sub>/MWh-gross is an appropriate nationwide standard. However, the EPA is soliciting comment on whether the use of alternate working fluid, such as supercritical CO<sub>2</sub>, or other potential efficiency improvements would make this emissions rate an appropriate standard of performance for base load combustion turbines.

An emissions rate of 770 lb CO<sub>2</sub>/MWh-gross has been demonstrated by 14 percent of recently constructed combined cycle EGUs. These turbines include combined cycle EGUs using 1-on-1 configurations and dry cooling, are manufactured by multiple companies, and have long-term emissions data that fully account for potential degradation in efficiency. One of the best performing large combined cycle EGUs that has maintained an emissions rate of 770 lb CO<sub>2</sub>/MWh-gross is the Dresden plant, located in Ohio.<sup>486</sup> This 2-on-1 combined cycle facility, uses a recirculating cooling tower, and has maintained an emissions rate of 765 lb CO<sub>2</sub>/MWh-gross, measured over 12 operating months with 99 percent confidence. The turbine engines are rated at 2,250 MMBtu/h, which demonstrates that the standard of 770 lb CO<sub>2</sub>/MWh-gross is achievable at a heat input rating of 2,000 MMBtu/h. In addition, while a 2-on-1 configuration and a cooling tower are more efficient than a 1-on-1 configuration and dry cooling, the Dresden Energy Facility does not use the most efficient combined cycle design currently available. Multiple more efficient designs have been developed since the

<sup>483</sup> Generating electricity closer to electricity demand can reduce stress on the electric grid, reducing line losses and freeing up transmission capacity to support additional generation from variable renewable sources. Further, combined cycle EGUs located in urban areas could be designed as CHP EGUs, which have potential environmental and economic benefits.

<sup>484</sup> Power sector modeling projects that combined cycle EGUs will operate at lower capacity factors in the future. Combined cycle EGUs with lower base load efficiencies, but higher part load efficiencies could have lower overall emission rates.

<sup>485</sup> According to the data in Gas Turbine World 2021, while there is a design efficiency advantage of going from a 1-on-1 configuration to a 2-on-1 configuration (assuming the same turbine engine) there is no efficiency advantage of 3-on-1 configurations compared to 2-on-1 configurations.

<sup>486</sup> The Dresden Energy Facility is listed as being located in Muskingum County, Ohio, as being owned by the Appalachian Power Company, as having commenced commercial operation in late 2011. The facility ID (ORISPL) is 55350 1A and 1B.

Dresden Energy Facility commenced operation a decade ago that more than offset these efficiency losses. Therefore, the EPA proposes that while the Dresden combined cycle EGUs uses a 2-on-1 configuration with a cooling tower, it demonstrates that an emissions rate of 770 lb CO<sub>2</sub>/MWh-gross is achievable for all new large combined cycle EGUs. For additional information on the EPA analysis of emission rates for high efficiency base load combined cycle EGUs, see the *Efficient Generation at Combustion Turbine Electric Generating Units* TSD, which is available in the rulemaking docket.

The EPA is not proposing an emissions rate of 800 lb CO<sub>2</sub>/MWh-gross because it does not represent the most efficient combined cycle EGUs designs. Nearly half of recently constructed combined cycle EGUs have maintained an emissions rate of 800 lb CO<sub>2</sub>/MWh-gross. However, the EPA is soliciting comment on whether this higher emissions rate is appropriate on grounds that it would increase flexibility and reduce costs to the regulated community by allowing more available designs to operate as base load combustion turbines.

With respect to small combined cycle combustion turbines, the best performing unit is the Holland Energy Park facility in Holland, Michigan, which commenced operation in 2017 and uses a 2-on-1 configuration and a cooling tower.<sup>487</sup> The 50 MW turbine engines have individual heat input ratings of 590 MMBtu/h and serve a single 45 MW steam turbine. The facility has maintained a 12-operating month, 99 percent confidence emissions rate of 870 lb CO<sub>2</sub>/MWh-gross. This long-term data accounts for degradation and variable operating conditions and demonstrates that a base load combustion turbine EGU with a turbine rated at 250 MMBtu/h should be able to maintain an emissions rate of 900 lb CO<sub>2</sub>/MWh-gross.<sup>488</sup> In addition, there is a commercially available HRSG that uses supercritical CO<sub>2</sub> instead of steam as the working fluid. This HRSG would be significantly more efficient than the

<sup>487</sup> The Holland Park Energy Center is a CHP system that uses hot water in the cooling system for a snow melt system that uses a warm water piping system to heat the downtown sidewalks to clear the snow during the winter. Since this useful thermal output is low temperature, it does not materially reduce the electrical efficiency of the EGU. If the useful thermal output were accounted for, the emissions rate of the Holland Energy Park would be lower. The facility ID (ORISPL) is 59093 10 and 11.

<sup>488</sup> To estimate an achievable emissions rate for an efficient combined cycle EGU at 250 MMBtu/h the EPA assumed a linear relationship for combined cycle efficiency with turbine engines with base load ratings of less than 2,000 MMBtu/h.

HRSG that uses dual pressure steam, which is common for small combined cycle EGUs.<sup>489</sup> When these efficiency improvements are accounted for, a new small natural gas-fired combined cycle EGU would be able to maintain an emissions rate of 850 lb CO<sub>2</sub>/MWh-gross. Therefore, the Agency is soliciting comment on whether the small natural gas-fired base load combustion turbine standard of performance should be 850 lb CO<sub>2</sub>/MWh-gross.

In summary, the Agency solicits comment on the following range of potential standards of performance:

- New and reconstructed natural gas-fired base load combustion turbines with a heat input rating that is greater than 2,000 MMBtu/h: a range of 730–800 lb CO<sub>2</sub>/MWh-gross;
- New and reconstructed natural gas-fired base load combustion turbines with a heat input rating of 250 MMBtu/h: a range of 850 to 900 lb CO<sub>2</sub>/MWh-gross.

For intermediate load combustion turbines, the EPA evaluated the performance of recently constructed high efficiency natural gas-fired simple cycle EGUs. The EPA evaluated three emission rates for the intermediate load standard of performance: 1,200, 1,150, and 1,100 lb CO<sub>2</sub>/MWh-gross. Sixty two percent of recently constructed intermediate load simple cycle EGUs have maintained an emissions rate of 1,200 lb CO<sub>2</sub>/MWh-gross, 17 percent have maintained an emissions rate of 1,150 lb CO<sub>2</sub>/MWh-gross, and 6 percent have maintained an emissions rate of 1,100 lb CO<sub>2</sub>/MWh-gross. However, the units that have maintained an emissions rate of 1,100 lb CO<sub>2</sub>/MWh-gross generally have a single large aeroderivative combustion turbine design. In contrast, the ones that have maintained an emission rate of 1,150 lb CO<sub>2</sub>/MWh-gross have multiple different designs, including an industrial frame combustion turbine design, and are made by multiple manufacturers. Therefore, the EPA is proposing an intermediate load standard of performance of 1,150 lb CO<sub>2</sub>/MWh-gross. The Agency is soliciting comment on whether the standard should be 1,100 lb CO<sub>2</sub>/MWh-gross, or whether that would result in unacceptably high costs because currently only a single design for a large aeroderivative simple cycle turbine would be able to meet this standard. The Agency is also soliciting comment on a standard of performance

<sup>489</sup> If the combustion turbine engine exhaust temperature is 500°C or greater, a HRSG using 3 pressure steam without a reheat cycle could potentially provide an even greater increase in efficiency (relative to a HRSG using 2 pressure steam without a reheat cycle).

of 1,200 lb CO<sub>2</sub>/MWh-gross. While this would achieve fewer GHG reductions, it would increase flexibility, and potentially reduce costs, to the regulated community by allowing the currently available designs to operate as intermediate load combustion turbines. For additional information on the EPA analysis of emission rates for high efficiency intermediate load simple cycle EGUs, see the *Efficient Generation at Combustion Turbine Electric Generating Units* TSD, which is available in the rulemaking docket

The EPA is also soliciting comment on whether the use of steam injection is applicable to intermediate load combustion turbines. Steam injection is the use of a relatively low cost HRSG to produce steam that is injected into the combustion chamber of the combustion turbine engine instead of using a separate steam turbine.<sup>490</sup> Advantages of steam injection include improved efficiency and increases the output of the combustion turbine as well as reducing NO<sub>x</sub> emissions. Combustion turbines using steam injection have characteristics in-between simple cycle and combined cycle combustion turbines. They are more efficient, but more complex and have higher capital costs than simple cycle combustion turbines without steam injection. Combustion turbines using steam injection are simpler and have lower capital costs than combined EGUs but have lower efficiencies. The EPA is aware of a single combustion turbine that is using steam injection that has maintained a 12-operating month emission rates of less than 1,000 lb CO<sub>2</sub>/MWh-gross. The EPA requests that commenters include information on whether this technology would be applicable to intermediate load combustion turbines and could be part of either the first or second component of the BSER along with cost information.<sup>491</sup>

## 2. Phase-2 Standards

The use of CCS and hydrogen co-firing are both approaches developers are considering to reduce GHG emissions beyond highly efficient generation. However, as noted above, these approaches apply to different subcategories and are not applicable to

<sup>490</sup> A steam injected combustion turbine would be considered a combined cycle combustion turbine (for NSPS purposes) because energy from the turbine engine exhaust is recovered in a HRSG and that energy is used to generate additional electricity.

<sup>491</sup> The second component of the BSER, 30 percent low-GHG hydrogen co-firing, would reduce the emissions rate to 880 lb CO<sub>2</sub>/MWh-gross.

the same EGUs. The proposed phase-2 standards are in table 3.

TABLE 3—PHASE-2 STANDARDS OF PERFORMANCE

Subcategory	BSER	Standard of performance
Low load .....	Lower emitting fuels .....	120–160 lb CO <sub>2</sub> /MMBtu.
Intermediate load .....	Highly efficient simple cycle technology coupled with co-firing 30 percent (by volume) low-GHG hydrogen.	1,000 lb CO <sub>2</sub> /MWh-gross.
Base load adopting the CCS pathway .....	Highly efficient combined cycle technology coupled with 90 percent CCS.	90 lb CO <sub>2</sub> /MWh-gross.
Base load adopting the low-GHG hydrogen co-firing pathway.	Highly efficient combined cycle technology coupled with co-firing 30 percent (by volume) low-GHG hydrogen.	680 lb CO <sub>2</sub> /MWh-gross.

Co-firing 30 percent by volume low-GHG hydrogen reduces emissions by 12 percent. The EPA applied this percent reduction to the emission rates for the intermediate load and base load units adopting the low-GHG hydrogen co-firing pathway subcategories, to determine the phase-1 standards. For the base load combustion turbines adopting the CCS subcategory, the EPA reduced the emissions rate by 89 percent to determine the CCS based phase-2 standards.<sup>492</sup> The CCS percent reduction is based on a CCS system capturing 90 percent of the emitting CO<sub>2</sub> being operational anytime the combustion turbine is operating. However, if the carbon capture equipment has lower availability/reliability than the combustion turbine or the CCS equipment takes longer to startup than the combustion turbine itself there would be periods of operation where the CO<sub>2</sub> emissions would not be controlled by the carbon capture equipment. As noted in section VII.F.3.b.iii(A)(2) of this preamble, the operating availability (*i.e.*, the amount of time a process operates relative to the

amount of time it planned to operate) of industrial processes is usually less than 100 percent. Assuming that CO<sub>2</sub> capture achieves 90 percent capture when available to operate, that CCS is available to operate 90 percent of the time the combustion turbine is operating, and that the combustion turbine operates the same whether or not CCS is available to operate, total emission reductions would be 81 percent. Higher levels of emission reduction could occur for higher capture rates coupled with higher levels of operating availability relative to operation of the combustion turbine. If the combustion turbine were not permitted to operate when CCS was unavailable, there may be local reliability consequences or issues during startup or shutdown, and the EPA is soliciting comment on how to balance these issues. Additionally, the EPA is soliciting comment on the range of reduction in emission rate of 75 to 90 percent.

The standards of performance for the intermediate and base load combustion turbines would also be adjusted based

on the uncontrolled emission rates of the fuels relative to natural gas. For 100 percent distillate oil-fired combustion turbines, the emission rates would be 1,300 lb CO<sub>2</sub>/MWh-gross, 120 lb CO<sub>2</sub>/MWh-gross, and 910 lb CO<sub>2</sub>/MWh-gross for the intermediate load, non low-GHG hydrogen co-firing base load, and low-GHG hydrogen co-firing base load subcategories respectively.

3. Phase-3 Standards

The third component of the BSER is applicable to owner/operators of base load combustion turbines that elect to implement early GHG reductions (*i.e.*, comply with an emissions rate of 680 lb CO<sub>2</sub>/MWh-gross starting in January 2032). The phase 3 BSER standard of performance increases the GHG reduction requirements and is based on co-firing 96 percent by volume low-GHG hydrogen in addition to the use of highly efficient combined cycle technology in combination with the best operating and maintenance practices. The proposed phase-3 standards are in table 4.

TABLE 4—PHASE-3 STANDARDS OF PERFORMANCE

Subcategory	BSER	Standard of performance
Base load electing to implement early GHG reductions.	Highly efficient combined cycle technology coupled with co-firing 89 percent (by heat input) low-GHG hydrogen.	90 lb CO <sub>2</sub> /MWh-gross.

Co-firing 89 percent by heat input (96 percent by volume) low-GHG hydrogen reduces GHG emissions by 89 percent. The EPA applied this percent reduction to the emission rates for base load under phase 1 of the BSER. Similar to the phase 1 and 2 standards of performance, the numeric standard would be adjusted based on the uncontrolled emission

rates of the fuels relative to natural gas. For 100 percent distillate oil-fired combustion turbines, the emission rates would be 120 lb CO<sub>2</sub>/MWh-gross.

As a variation on proposing the date for meeting this standard as 2038, the EPA solicits comment on proposing the date as 2035, coupled with authorizing an approach for crediting early

reductions, under which a source that achieves reductions due to co-firing low-GHG hydrogen starting in 2032 may apply credit for those reductions to its emission rate beginning in 2035. Another, more stringent, variation of this approach would be to allow credit only for reductions below the emission rate otherwise required by 2032. Other

<sup>492</sup> The 89 percent reduction from CCS accounts for the increased auxiliary load of a 90 percent post combustion amine-based capture system. Due to

rounding, the proposed numeric standards of performance do not necessarily match the standards

that would be determined by applying the percent reduction to the phase 1 standards.

variations would allow sources to generate credits from reductions from co-firing low-GHG hydrogen, or from any other reductions below their standard of performance, in any year before 2035. In this manner, the source would be authorized to comply with its 2035 standard in part through use of credits generated by making reductions beginning in 2032. Under such an approach, early credits could only be used by the unit that generated those credits. For instance, a unit co-firing 30 percent low-GHG hydrogen prior to 2035 would be able to generate credits that it could use in 2035 and beyond. This would allow a unit co-firing low-GHG hydrogen to ramp up the amount it co-fired over time, while still achieving the same amount of emission reductions that would have been achieved had the unit co-fired enough low-GHG hydrogen (e.g., 96 percent by volume) starting in 2035. Another variation on this approach would be to treat such a crediting scheme as a compliance alternative to the CCS BSER by showing equivalent emission reductions, rather than the standard itself.

The EPA proposes the following mechanism to ensure that affected sources in the base load subcategory comply with the applicable standard of performance in the event that the EPA finalizes both the CCS pathway (that is, the use of 90-percent-capture CCS by 2035) and the low-GHG hydrogen pathway (that is, co-firing 30 percent low-GHG hydrogen by 2032 and 96 percent by 2038). The EPA proposes that affected sources must notify the EPA by January 1, 2031, which pathway they are selecting, and thus which standard they intend to comply with. If they select the low-GHG hydrogen pathway, they must comply with the applicable standard based on co-firing 30 percent hydrogen (by volume) in 2032 through 2037. In addition, in 2033 through 2037, they must be prepared to demonstrate that they complied with the applicable standard based on co-firing 30 percent low-GHG hydrogen in the preceding years, beginning in 2032. In 2038, they must comply with the applicable standard based on co-firing 96 percent (by volume) now-GHG hydrogen.

#### H. Reconstructed Stationary Combustion Turbines

In the previous sections, the EPA explained the background of and requirements for new and reconstructed stationary combustion turbines and evaluated various control technology configurations to determine the BSER. Because the BSER is the same for new

and reconstructed stationary combustion turbines, the Agency is proposing to use the same emissions analysis for both new and reconstructed stationary combustion turbines. For each of the subcategories, the EPA is proposing that the proposed BSER results in the same standard of performance for new stationary combustion turbines and reconstructed stationary combustion turbines. Since reconstructed turbines could likely incorporate technologies to co-fire hydrogen as part of the reconstruction process at little or no cost, the low-GHG hydrogen co-firing would likely to be similar to those for newly constructed combustion turbines. For CCS, the EPA approximated the cost to add CCS to a reconstructed combustion turbine by increasing the capital costs of the carbon capture equipment by 10 percent relative to the costs for a newly constructed combustion turbine. This increases the capital cost from \$949/kW to \$1,044/kW.<sup>493</sup> Using a 12-year amortization period, a 90 percent-capture amine-based post combustion CCS system increases the LCOE by \$8.5/MWh and has overall CO<sub>2</sub> abatement costs of \$25/ton (\$28/metric ton).

A reconstructed stationary combustion turbine is not required to meet the standards if doing so is deemed to be “technologically and economically” infeasible.<sup>494</sup> This provision requires a case-by-case reconstruction determination in the light of considerations of economic and technological feasibility. However, this case-by-case determination would consider the identified BSER, as well as technologies the EPA considered, but rejected, as BSER for a nationwide rule. One or more of these technologies could be technically feasible and of reasonable cost, depending on site-specific considerations and if so, would likely result in sufficient GHG reductions to comply with the applicable reconstructed standards. Finally, in some cases, equipment upgrades, and best operating practices would result in sufficient reductions to achieve the reconstructed standards.

#### I. Modified Stationary Combustion Turbines

CAA section 111(a)(4) defines a “modification” as “any physical change in, or change in the method of operation of, a stationary source” that either “increases the amount of any air pollutant emitted by such source or . . .

results in the emission of any air pollutant not previously emitted.” Certain types of physical or operational changes are exempt from consideration as a modification. Those are described in 40 CFR 60.2, 60.14(e).

In the 2015 NSPS, the EPA did not finalize standards of performance for stationary combustion turbines that conduct modifications; instead, the EPA concluded that it was prudent to delay issuing standards until the Agency could gather more information (80 FR 64515; October 23, 2015). There were several reasons for this determination: few sources had undertaken NSPS modifications in the past, the EPA had little information concerning them, and available information indicated that few owners/operators of existing combustion turbines would undertake NSPS modifications in the future; and since the Agency eliminated proposed subcategories for small EGUs in the 2015 NSPS, questions were raised as to whether smaller existing combustion turbines that undertake a modification could meet the final performance standard of 1,000 lb CO<sub>2</sub>/MWh-gross.

It continues to be the case that the EPA is aware of no evidence indicating that owners/operators of combustion turbines intend to undertake actions that could qualify as NSPS modifications in the future. EPA is not proposing, or soliciting comment on whether it should propose, standards of performance for modifications of combustion turbines.

#### J. Startup, Shutdown, and Malfunction

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated portions of two provisions in the EPA’s CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that, the SSM exemption violates the requirement under section 302(k) of the CAA that some CAA section 112 standard apply continuously. Consistent with *Sierra Club v. EPA*, the EPA is proposing standards in this rule that apply at all times. The NSPS general provisions in 40 CFR 60.11(c) currently exclude opacity requirements during periods of startup, shutdown, and malfunction and the provision in 40 CFR 60.8(c) contains an exemption from non-opacity standards. These general provision requirements would automatically apply to the standards set in an NSPS, unless the regulation specifically overrides these general provisions. The NSPS subpart TTTT (40

<sup>493</sup> The kW value used as reference for the costs is the output from the combined cycle EGU prior to the installation of the CCS.

<sup>494</sup> 40 CFR 60.15(b)(2).

CFR part 60 subpart TTTT), does not contain an opacity standard, thus, the requirements at 40 CFR 60.11(c) are not applicable. The NSPS subpart TTTT also overrides 40 CFR 60.8(c) in table 3 and requires that sources comply with the standard(s) at all times. In reviewing NSPS subpart TTTT and proposing the new NSPS subpart TTTTa, the EPA is proposing to retain in subpart TTTTa the requirements that sources comply with the standard(s) at all times. Therefore, the EPA is proposing in table 3 of the new subpart TTTTa to override the general provisions for SSM provisions. The EPA is proposing that all standards in subpart TTTTa apply at all times.

The EPA has attempted to ensure that the general provisions we are proposing to override are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. The EPA is specifically seeking comment on whether we have successfully done so.

In proposing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained in this section of the preamble, has not proposed alternate standards for those periods. The EPA analysis of achievable standards of performance used CEMS data that includes all period of operation. Since periods of startup, shutdown, and malfunction were not excluded from the analysis, the EPA is not proposing alternate standard for those periods of operation.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead, they are, by definition, sudden, infrequent, and not reasonably preventable failures of emissions control, process, or monitoring equipment. (40 CFR 60.2). The EPA interprets CAA section 111 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 111 standards. Nothing in CAA section 111 or in case law requires that the EPA consider malfunctions when determining what standards of performance reflect the degree of emission limitation achievable through "the application of the best system of emission reduction" that the EPA determines is adequately demonstrated. While the EPA accounts for variability in setting standards of performance, nothing in CAA section 111 requires the Agency to consider malfunctions as part of that analysis. The EPA is not required to treat a malfunction in the same manner as the type of variation in performance that occurs during routine

operations of a source. A malfunction is a failure of the source to perform in a "normal or usual manner" and no statutory language compels the EPA to consider such events in setting CAA section 111 standards of performance. The EPA's approach to malfunctions in the analogous circumstances (setting "achievable" standards under CAA section 112) has been upheld as reasonable by the D.C. Circuit in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606–610 (2016).

#### K. Testing and Monitoring Requirements

Because the NSPS reflects the application of the best system of emission reduction under conditions of proper operation and maintenance, in doing the NSPS review, the EPA also evaluates and determines the proper testing, monitoring, recordkeeping and reporting requirements needed to ensure compliance with the NSPS. This section will include a discussion on the current testing and monitoring requirements of the NSPS and any additions the EPA is proposing to include in 40 CFR part 60, subpart TTTTa.

##### 1. General Requirements

The current rule allows three approaches for determining compliance with its emissions limits: Continuous measurement using CO<sub>2</sub> CEMS and flow measurements for all EGUs; calculations using hourly heat input and 'F' factors<sup>495</sup> for EGUs firing uniform oil or gas or non-uniform fuels; or Tier 3 calculations using fuel use and carbon content as described in GHGRP regulations for EGUs firing non-uniform fuels. The first two approaches are in use for carbon dioxide by the Acid Rain program (40 CFR part 75), to which most, if not all, of the EGUs affected by NSPS subpart TTTT are already subject, while the last approach is in use for carbon dioxide, nitrous oxide, and methane reporting from stationary fuel combustion sources (40 CFR part 98, subpart C).

The EPA believes continuing the use of these familiar approaches already in use by other programs represents a cost-effective means of obtaining quality assured data requisite for determining carbon dioxide mass emissions. Therefore, no changes to the current ways of collecting carbon dioxide and associated data needed for mass determination, such as flow rates, fuel heat content, fuel carbon content, and the like, are proposed. Because no changes are proposed and because the

cost and burden for EGU owners or operators are already accounted for by other rulemakings, this aspect of the proposed rule is designed to have minimal, if any, cost or burden associated with carbon dioxide testing and monitoring. In addition, the proposal contains no changes to measurement and testing requirements for determining electrical output, both gross and net, as well as thermal output, to current existing requirements.

However, the EPA requests comment on whether continuous carbon dioxide and flow measurements should become the sole means of compliance for this rule. Such a switch would increase costs for those EGU owners or operators who are currently relying on the oil- or gas-fired or non-uniform fuel-fired calculation-based approaches for compliance. By way of reference, the annualized cost associated with adoption and use of continuous carbon dioxide and flow measurements where none now exist is estimated to be about \$52,000. To the extent that the rule were to mandate continuous carbon dioxide and flow measurements in accordance with what is currently allowed as one option and that an EGU lacked this instrumentation, its owner or operator would need to incur this annual cost to obtain such information and to keep the instrumentation calibrated.

##### 2. Requirements for Sources Implementing CCS

The CCS process is also subject to monitoring and reporting requirements under the EPA's GHGRP (40 CFR part 98). The GHGRP requires reporting of facility-level GHG data and other relevant information from large sources and suppliers in the U.S. The "suppliers of carbon dioxide" source category of the GHGRP (GHGRP subpart PP) requires those affected facilities with production process units that capture a CO<sub>2</sub> stream for purposes of supplying CO<sub>2</sub> for commercial applications or that capture and maintain custody of a CO<sub>2</sub> stream in order to sequester or otherwise inject it underground to report the mass of CO<sub>2</sub> captured and supplied. Facilities that inject a CO<sub>2</sub> stream underground for long-term containment in subsurface geologic formations report quantities of CO<sub>2</sub> sequestered under the "geologic sequestration of carbon dioxide" source category of the GHGRP (GHGRP subpart RR). In 2022, to complement GHGRP subpart RR, the EPA proposed the "geologic sequestration of carbon dioxide with enhanced oil recovery (EOR) using ISO 27916" source category of the GHGRP (GHGRP subpart VV) to provide an alternative method of

<sup>495</sup> An F factor is the ratio of the gas volume of the products of combustion to the heat content of the fuel.



reporting geologic sequestration in association with EOR.<sup>496 497 498</sup>

The current rule leverages the regulatory requirements under GHGRP subpart RR and does not reference GHGRP subpart VV. The EPA is proposing that any affected unit that employs CCS technology that captures enough CO<sub>2</sub> to meet the proposed standard and injects the captured CO<sub>2</sub> underground must report under GHGRP subpart RR or proposed GHGRP subpart VV. If the emitting EGU sends the captured CO<sub>2</sub> offsite, it must assure that the CO<sub>2</sub> is managed at a facility subject to the GHGRP requirements, and the facility injecting the CO<sub>2</sub> underground must report under GHGRP subpart RR or proposed GHGRP subpart VV. This proposal does not change any of the requirements to obtain or comply with a UIC permit for facilities that are subject to the EPA's UIC program under the Safe Drinking Water Act.

The EPA also notes that compliance with the standard is determined exclusively by the tons of CO<sub>2</sub> captured by the emitting EGU. The tons of CO<sub>2</sub> sequestered by the geologic sequestration site are not part of that calculation, though the EPA anticipates that the quantity of CO<sub>2</sub> sequestered will be substantially similar to the quantity captured. However, to verify that the CO<sub>2</sub> captured at the emitting EGU is sent to a geologic sequestration site, we are leveraging regulatory reporting requirements under the GHGRP. The BSER is determined to be adequately demonstrated based solely on geologic sequestration that is not associated with EOR. However, EGUs also have the compliance option to send CO<sub>2</sub> to EOR facilities that report under GHGRP subpart RR or proposed GHGRP subpart VV. We also emphasize that this proposal does not involve regulation of downstream recipients of captured CO<sub>2</sub>. That is, the regulatory standard applies exclusively to the emitting EGU, not to any downstream user or recipient of the captured CO<sub>2</sub>. The requirement that the

emitting EGU assure that captured CO<sub>2</sub> is managed at an entity subject to the GHGRP requirements is thus exclusively an element of enforcement of the EGU standard. This will avoid duplicative monitoring, reporting, and verification requirements between this proposal and the GHGRP, while also ensuring that the facility injecting and sequestering the CO<sub>2</sub> (which may not necessarily be the EGU) maintains responsibility for these requirements. Similarly, the existing regulatory requirements applicable to geologic sequestration are not part of the proposed rule.

### 3. Requirements for Sources Co-Firing Low-GHG Hydrogen

Because the EPA is basing its proposed definition of low-GHG hydrogen consistent with IRC section 45V(b)(2)(D), it is reasonable, if possible and practicable, for the EPA to adopt, in whole or in part, the eligibility, monitoring, verification, and reporting protocols associated with IRC section 45V(b)(2)(D) when finalized by Treasury for the production of low-GHG hydrogen, and apply those protocols, as applicable, to requirements the EPA establishes for the demonstration by EGUs that they are using low-GHG hydrogen. Adopting very similar requirements for demonstrations by EGUs that they are using low-GHG hydrogen would help ensure there are not dueling eligibility requirements for low-GHG hydrogen production with overall emissions rates of 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less. Adopting similar methods for assessing GHG emissions associated with hydrogen production pathways would create clarity and certainty and reduce confusion.

The EPA is taking comment on its proposal to closely follow Treasury protocols in determining how EGUs demonstrate compliance with the fuel characteristics required in this rulemaking. The EPA is taking comment on what forms of acceptable mechanisms and documentary evidence should be required for EGUs to demonstrate compliance with the obligation to co-fire low-GHG hydrogen, including proof of production pathway, overall emissions calculations or modeling results and input, purchasing agreements, contracts, and energy attribute certificates. Given the complexities of tracking produced hydrogen and the public interest in such data, the EPA is also taking comment on whether EGUs should be required to make fully transparent their sources of low-GHG hydrogen and the corresponding quantities procured. The EPA is also seeking comment on requiring that EGUs using low-GHG

hydrogen demonstrate that their hydrogen is exclusively from facilities that only produce low-GHG hydrogen, as a means of reducing demonstration burden and opportunities for double counting that could otherwise occur for hydrogen purchased from facilities that produce multiple types of hydrogen and the complex recordkeeping and documentation that would be necessary to reliably verify that the hydrogen purchased from such facilities qualifies. The EPA solicits comment on a mechanism to operationalize such a provision.

Treasury is currently developing implementing rules for IRC section 45V. Congress specified that tax credit eligibility for the credit tiers (45V(b)(2)(A), 45V(b)(2)(B), 45V(b)(2)(C), and 45V(b)(2)(D)) should be based on an assessment of the estimated well-to-gate<sup>499</sup> GHG emissions of hydrogen production, determined based on the most recent Greenhouse gases, Regulated Emissions, and Energy use in Transportation model (GREET model) or a successor model as determined by the Secretary of Treasury. Consistent with its proposal to define low-GHG hydrogen consistent with IRC section 45V(b)(2)(D), the EPA is also proposing that, for the purpose of demonstrating compliance with the requirement to combust low-GHG hydrogen under this NSPS, the maximum extent possible the same methodology specified in IRC section 45V and requirements currently under development should apply. One example would be requiring that the owner/operator of the combustion turbine obtain from the hydrogen producer from which they purchase low-GHG hydrogen the hydrogen producer's calculation of GHG levels associated with its hydrogen production using the GREET well-to-gate analysis. The GREET model is well established, designed to adapt to evolving knowledge, and capable of including technological advances. The EPA solicits comment on whether the Agency should consider unrelated or third-party verification as part of the standards required for EGUs to demonstrate compliance. Given the

<sup>496</sup> 87 FR 36920 (June 21, 2022).

<sup>497</sup> International Standards Organization (ISO) standard designated as CSA Group (CSA)/American National Standards Institute (ANSI) ISO 27916:2019, *Carbon Dioxide Capture, Transportation and Geological Storage—Carbon Dioxide Storage Using Enhanced Oil Recovery (CO<sub>2</sub>-EOR)* (referred to as "CSA/ANSI ISO 27916:2019").

<sup>498</sup> As described in 87 FR 36920 (June 21, 2022), both subpart RR and proposed subpart VV (CSA/ANSI ISO 27916:2019) require an assessment and monitoring of potential leakage pathways; quantification of inputs, losses, and storage through a mass balance approach; and documentation of steps and approaches used to establish these quantities. Primary differences relate to the terms in their respective mass balance equations, how each defines leakage, and when facilities may discontinue reporting.

<sup>499</sup> Well-to-gate analysis of lifecycle GHG emissions represents a smaller scope than cradle-to-grave analysis. Well-to-gate emissions of hydrogen production include those associated with fossil fuel or electricity feedstock production and delivery to the hydrogen facility; the hydrogen production process itself; and any associated CCS applied at the hydrogen production facility. Well-to-gate analysis does not consider emissions associated with the manufacture or end-of-life of the hydrogen production facility or facilities providing feedstock inputs to the hydrogen production facility. Nor does it consider emissions associated with transportation, distribution, and use of hydrogen beyond the production facility.

sequential timing of EPA and Treasury processes, the EPA may take further action, after promulgation of this NSPS, to provide additional guidance on application of Treasury's framework for IRC section 45V to this particular context. The EPA requests comment on its proposal to adopt as much as possible the methodology specified in IRC section 45V and any associated implementing requirements established by Treasury, once the methodology and implementing requirements are finalized, as part of the obligations for EGUs to demonstrate compliance with the requirement to combust low-GHG hydrogen under this NSPS.

Although proposing to incorporate as much as possible Treasury's eligibility, monitoring, reporting, and verification protocols, the EPA recognizes that Treasury protocols concern hydrogen production, whereas the EPA's proposed requirements apply to affected EGUs that use the hydrogen to demonstrate compliance with the low-GHG hydrogen co-firing obligations. The EPA is also taking comment on several underlying policy issues relevant to ensuring that hydrogen used to comply with this rule is low-GHG hydrogen. One reason that the EPA is considering whether an alternative method to the Treasury guidance may be needed to determine whether hydrogen meets the requirements to be considered low-GHG is because hydrogen production facilities that begin construction after 2032 will not be eligible for the tax credits. The EPA wants to make sure a pathway exists for low-GHG hydrogen to be used for compliance purposes even if the producer began construction after 2032 and is not receiving tax credits.

Given this and other uncertainties, the EPA is taking comment on issues that would be relevant should the Agency develop its own protocols for EGUs to demonstrate compliance with the overall emissions rate in IRC section 45V(b)(2)(D) for co-firing as BSER in this rulemaking.

The EPA is also taking comment on strategies the EPA could adopt to inform its own eligibility, monitoring, reporting and verification protocols for ensuring compliance with the 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less emission rate for compliance with the low-GHG provisions of this rule, if the EPA does not adopt Treasury's protocols. The purpose of these strategies would be to ensure that EGUs are using only low-GHG hydrogen, *i.e.*, hydrogen that results in GHG emissions of less than 0.45 kg CO<sub>2</sub> per kg H<sub>2</sub>. The EPA is taking comment on the appropriateness of requiring EGUs to provide verification that the

hydrogen they use complies with this standard, as demonstrated by the GREET model for estimating the GHG emissions associated with hydrogen production from well-to-gate, and to what extent EGUs should be required to verify the accuracy of the energy inputs and conclusions of the GREET model for the hydrogen used by the EGU to comply with this rule.

Several important considerations with respect to determining overall GHG emissions rates for hydrogen production pathways have been raised by researchers and have been picked up in trade press coverage.<sup>500 501</sup> Given the importance of these issues, the recent accumulation of relevant research, and the range of stakeholder positions, the EPA is taking comment on the need for (and design of) approaches and appropriate timeframes for allowing EGUs to meet requirements for geographic and temporal alignment requirements to verify that the hydrogen used by the EGU is compliant with this rulemaking, recognizing that EPA's low-GHG standard for compliance would not begin until 2032. The EPA is soliciting comment on these issues, as they relate to co-firing low-GHG hydrogen in combustion turbines and the requisite need to only utilize the lowest-GHG hydrogen in these applications as specified in IRC section 45V, specifically IRC section 45V(b)(2)(D). The EPA notes this is one of multiple forthcoming opportunities for public comment on this suite of issues, and the EPA's proposal is specific to low-GHG hydrogen in the context of qualifying a co-firing fuel as part of BSER.

It is important to note that the landscape for methane emissions monitoring and mitigation is changing rapidly. For example, the EPA is in the process of developing enhanced data reporting requirements for petroleum and natural gas systems under its GHGRP, and is in the process of finalizing requirements under New Source Performance Standards and Emission Guidelines for the oil and gas sector that will result in mitigation of methane emissions. With these changes, it is expected that the quality of data to verify methane emissions will improve and methane emissions rates will change over time. Adequately identifying and accounting for overall emissions associated with methane-based feedstocks is essential in the determination of accurate overall

emissions rates to comply with the low-GHG hydrogen standards in this rule. The EPA is taking comment on how methane leak rates can be appropriately quantified and conservatively estimated given the inherent uncertainties and wide range of basin-specific characteristics. The EPA is soliciting comment on whether EGUs should be required to produce a demonstration of augmented in-situ monitoring requirements to determine upstream emissions when methane feedstock is used for low-GHG hydrogen used by the EGU for compliance with this rule. The EPA is also taking comment on whether EGUs should use a default assumption for upstream methane leak rates in the event monitoring protocols are not finalized as part of this rulemaking, and what an appropriate default leak rate should be, including what evidence would be necessary for the EGU to deviate from that default assumption. The EPA is also taking comment on the appropriateness of requiring EGUs to provide CEMS data for SMR or ATR processes seeking to produce qualifying low-GHG hydrogen for co-firing to ensure the amount of carbon captured by CCS is properly and consistently monitored and outage rates and times are recorded and considered. The EPA is soliciting comment on providing EGUs with a representative and climate-protective default assumption for carbon capture rates associated with SMR and ATR hydrogen pathways, inclusive of outages, if CCS is used for low-GHG hydrogen production as part of this rulemaking, including what evidence would be necessary for the EGU to deviate from that default assumption. These topics are particularly important to ensuring use of low-GHG hydrogen given the DOE estimate that by 2050, reformation-based production with CCS may account for 50–80 percent of total U.S. hydrogen production.<sup>502</sup> The EPA is taking comment on requiring substantiation of energy inputs used in any overall GHG emissions assessment for hydrogen production used by EGUs for compliance with this requirement.

In comparison with petrochemical-based hydrogen production pathways discussed above, electrolyzer-based hydrogen production has the potential for lower-GHG hydrogen because the technology is based on splitting water (H<sub>2</sub>O) molecules rather than splitting hydrocarbons (*e.g.*, CH<sub>4</sub>).<sup>503</sup> For EGUs

<sup>500</sup> Without Sufficient Guardrails, the Hydrogen Tax Credit Could Increase Emissions—Union of Concerned Scientists. [ucsusa.org](https://www.ucsusa.org).

<sup>501</sup> Hydrogen's Power Grid Demands Under Scrutiny in Tax Credit. [bloomberglaw.com](https://www.bloomberglaw.com).

<sup>502</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>.

<sup>503</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/>

relying on hydrogen produced using this pathway, the EPA is seeking comment on the method for assuring that energy inputs to that production are consistent with the low-GHG hydrogen standard that EGUs would be required to meet under this rule. Specifically, the EPA is taking comment on requiring EGUs to provide substantiation of low-GHG energy inputs into any overall emissions assessment for electrolytic hydrogen production pathways for hydrogen used by the EGUs to comply with the low-GHG hydrogen standard in this rule. Energy Attribute Certificates (EACs) (EACs from renewable sources are sometimes known as Renewable Energy Credits or RECs) are produced for each megawatt hour of low-GHG generation and therefore offer a measurable, auditable, and verifiable approach for determining the GHG emissions associated with the energy used to make the low-GHG hydrogen. EACs with specific attributes are commonly used in the electricity markets to substantiate corporate clean energy commitments and use, as well as for utility compliance with State RPS and CES programs. The EPA is taking comment on requiring EGUs to provide EAC verification for low-GHG emission energy inputs into GHG emissions assessments for hydrogen used by that EGU to comply with the low-GHG standard in this rule, for all hydrogen pathways. The EPA is seeking comment on allowing EGUs to use EACs as part of the documentation required for verifying the use of low-GHG hydrogen.

The EPA is taking comment on allowing EGUs to comply with the low-GHG hydrogen standard in this rule if they demonstrate that the hydrogen used is produced from: (1) dedicated low-GHG emitting electricity from a generator sited on the utility side of a meter that is contractually obligated to an electrolyzer, (2) a generator collocated with an electrolyzer and sited behind a common utility meter, or (3) a generator whereby the electrolyzer and generator are collocated but not interconnected to the grid and have no grid exchanges of power. The EPA is also taking comment on approaches for EGUs to demonstrate that purchased hydrogen produced from an electrolyzer could meet the low-GHG standard, in whole or part, through an allotment of zero emitting electricity to a portion of the electrolyzer's hydrogen output. Many announced hydrogen production projects pair electrolyzers with renewable (including hydroelectric) or nuclear energy, which are likely capable of producing low-

GHG hydrogen. Wind and solar renewable generation sources are variable, and nuclear units go offline for refueling purposes. In these cases, and others, grid-based electricity, which often has a high carbon intensity might be pursued in combination with EACs for each megawatt hour of grid-based energy used. Aligning the time and place (temporal and geographic alignment) of EACs used to allocate and describe delivered grid-based electricity consumed could potentially help ensure that hydrogen used is low-GHG hydrogen.<sup>504</sup> Some degree of alignment geographically, for example delivery of power to the balancing authority in which the electricity is consumed by the electrolyzer, could ensure that EACs used are representative of the allocation of the energy mix consumed by the electrolyzers. However, alignment could also entail trade-offs, about which the EPA would like more information.

In the case of temporal matching, the central issue is whether a producer must obtain sufficient EACs to match the total electricity demand of the electrolyzer on an annual basis corresponding to an overall emissions rates of 0.45 kg CO<sub>2</sub>e/kg H<sub>2</sub> or less, or whether the producer must verify that it has obtained an EAC for low carbon generation on a more granular timeframe, such as an hourly or monthly basis, for each time period the electrolyzer is running. In other words, how can book and claim methods for grid-connected systems be developed to reliably claim total energy input emissions are equivalent to a pure off-grid zero-carbon emitting system. Considerations around how grid-based electricity can effectively assure zero-carbon emitting energy inputs as validated by EACs have received greater attention since passage of the IRA. Solutions offered by researchers at Princeton University include requiring new grid-based hydrogen producers to match 100 percent of electricity consumption on an hourly basis with new carbon-free generation (substantiated through EACs with hourly attributes), with an estimated cost impact of \$1/kg.<sup>505</sup> Other research analyzing near-term emissions benefits of hourly EAC alignment with respect to IRC section 45V implementation is growing, with some divergent views about the emissions benefits of more precise alignment requirements.<sup>506</sup>

<sup>504</sup> "How Can Hydrogen Producers Show That They Are 'Clean'?", Resources for the Future, October 27, 2022.

<sup>505</sup> Princeton Citation: Minimizing emissions from grid-based hydrogen production in the United States—IOPscience January 2023.

<sup>506</sup> American Council on Renewable Energy (ACORE), "Analysis of Hourly & Annual GHG

Several research papers have focused on the expense, trade-offs, and benefits of phasing in new and hourly EAC alignment requirements.<sup>507</sup> An MIT Energy Initiative Working Paper examined emissions benefits of hourly alignment and supported a " 'a phased approach' . . . annual matching in the near term with a re-evaluation leaning towards hourly matching later on in the decade".<sup>508</sup> A Rhodium Report found that while "[r]equiring a high degree of stringency across regional, temporal, and additionality variables on day one . . . increases the total subsidized cost of hydrogen production" in the initial phase of the program, and concludes that ultimately "policymakers can't ignore the long-term emissions risk" and recommends, "[t]o construct emissions guardrails, the IRS can establish target dates for ratcheting up the certainty on key implementation details like a transition to more temporally granular matching. Such phase-in approaches give the hydrogen and power industries the signposts they need to develop the tracking tools, calculation approaches, contract language, and other key elements to assure green hydrogen contributes to decarbonization."<sup>509</sup> This analysis did not consider potential system-wide emissions impacts if costs present a near-term barrier to electrolytic hydrogen production, and reformation-based methods continue to dominate hydrogen production market share moving forward. Other research, for example from Princeton, supports hourly time-matching, additionality, and location requirements—arguing that all three pillars are important in ensuring low-GHG outcomes and that additional costs are not unreasonable. Research by Energy Innovation aligns with the Princeton study with respect to locational and additionality requirements and diverges in its recommendation of phasing in hourly EAC requirements by 2026.<sup>510</sup>

Emissions: Accounting for Hydrogen Production", April 2023. [acore.org](https://www.acore.org).

<sup>507</sup> Energy Futures Initiative, "The Hydrogen Demand Action Plan", February 2023. <https://energyfuturesinitiative.org/wp-content/uploads/sites/2/2023/02/EFI-Hydrogen-Hubs-FINAL-2-1.pdf>.

<sup>508</sup> MIT Energy Initiative, April 2023 "Producing hydrogen from electricity: How modeling additionality drives the emissions impact of time-matching requirements" Anna Cybulsky, Michael Giovanniello, Tim Schittekatte, Dharik S. Mallapragada.

<sup>509</sup> Rhodium Group, "Scaling Green Hydrogen in a post-IRA World" March 16, 2023. <https://rhg.com/research/scaling-clean-hydrogen-ira/>.

<sup>510</sup> <https://energyinnovation.org/wp-content/uploads/2023/04/Smart-Design-Of-45V-Hydrogen-Production-Tax-Credit-Will-Reduce-Emissions-And-Grow-The-Industry.pdf>.

The European Commission proposed a phased-in approach to defining what constitutes ‘renewable hydrogen’ for the European Union (EU). The EU framework includes multiple components including temporal alignment requirements: monthly EAC alignment is required at the onset of the program, and hourly EAC alignment requirements are phased-in by 2030.<sup>511 512</sup> An impact assessment of the temporal alignment requirements is to be completed in 2028 and could impact the timing of the hourly EAC phase-in requirements. The EU hydrogen requirements and conditions will apply to domestic producers and imports and do not expire. EAC alignment requirements impact both new and existing projects. Geographic alignment for EACs is required at the onset of the EU program, whereas vintage requirements necessitating new zero-carbon emitting energy source-based generation, often called ‘additional’, are phased in after 2028. The EU proposal was released in February and must be approved by the European Parliament and the Council of the EU within four months: amendments to the underlying policy are not permitted. Notably, unlike the United States, the EU has a carbon policy for power sector emissions that could help ensure that additional electricity demand from hydrogen production does not result in additional power sector CO<sub>2</sub> emissions. The EU and stakeholders examining costs and benefits of temporal EAC alignment requirements generally find that hourly EAC alignment is preferred before the 2032 proposed effective date of hydrogen co-firing requirements in this proposed rule, with most converging on or before 2030.<sup>513 514</sup>

The EPA is soliciting comment on requiring EGUs to use geographic and

temporal alignment approaches for EAC-related requirements and the appropriate timing and trade-offs of such approaches. The EPA is soliciting comment on the appropriateness of requiring geographic alignment for EACs used in conjunction with energy inputs at the balancing authority level at the onset of the compliance period for BSER in 2032. Similarly, the EPA is soliciting comments on the appropriateness of requiring hourly EAC alignment requirements at the onset of the compliance period for BSER in 2032. Relatedly, the EPA is taking comment on whether any hourly EAC alignment requirements should affect both existing and new projects beginning in 2032, regardless of when a project became operational and a recipient of IRC section 45V credits.

Hourly tracking systems are evolving to meet this need in real time. For example, PJM announced it would introduce EACs with hourly data stamping for low-GHG generators in March 2023. M-RETS, a regional attribute tracking system headquartered in the Midwest, has also introduced the capability to track hourly energy attributes. While several tracking systems are announcing or have started issuing hourly EACs, standardized methods, and nationwide coverage is still developing. Recognizing that the timing of EPA’s proposed regulations would not require such tracking systems to be fully functional until the 2030s, the EPA is taking comment on the suitability of emerging and differentiated tracking systems to provide the infrastructure for hourly energy attribute tracking for EGUs complying with low-GHG hydrogen standards. The EPA is also taking comment on the need for energy attribute tracking systems to uniformly approach the issuance, allocation, tracking and retirement of hourly EACs using similar approaches to ensure a common and consistent national practice.

#### *L. Mechanisms To Ensure Use of Actual Low-GHG Hydrogen*

The EPA is soliciting comment on appropriate mechanisms to ensure that the low-GHG hydrogen used by EGUs is actually low-GHG, and guard against EGU use of hydrogen that is falsely claimed to be low-GHG hydrogen. The EPA solicits comment on whether EGUs should be required to provide an independent third-party verification that hydrogen the EGU uses to comply with this regulation meets the requirements for low-GHG hydrogen. EPA also solicits comment on whether any such verifying third party must hold

an active accreditation from an accrediting body, such as the California Air Resources Board’s Low Carbon Fuels Standards Program or the International Standards Organization 14064 Code. EPA seeks comment on any other mechanisms to ensure that hydrogen used by EGUs meets the low-GHG standard and what the remedy should be if an EGU uses hydrogen that is determined not to meet the definition of low-GHG hydrogen.

#### *M. Recordkeeping and Reporting Requirements*

The current rule (subpart TTTT of 40 CFR part 60) requires EGU owners or operators to prepare reports in accordance with the Acid Rain Program’s ECMPS and, for the EGUs relying on the compliance approaches contained in Appendix G of 40 CFR part 75, with the reporting requirements of that Appendix. Such reports are to be submitted quarterly. The EPA believes all EGU owners and operators have extensive experience in using the ECMPS and use of a familiar system ensures quick and effective rollout of the program in today’s proposal. Because all EGUs are expected to be covered by and included in the ECMPS, minimal, if any, costs for reporting are expected for this proposal. In the unlikely event that a specific EGU is not already covered by and included in the ECMPS, the estimated annual per unit cost would be about \$8,500.

The current rule’s recordkeeping requirements at 40 CFR part 60.5560 rely on a combination of general provision requirements (see 40 CFR 60.7(b) and (f)), requirements at subpart F of 40 CFR part 75, and an explicit list of items, including data and calculations; the EPA proposes to retain those existing subpart TTTT of 40 CFR part 60 requirements in the new NSPS subpart TTTTa of 40 CFR part 60. The annual cost of those recordkeeping requirements would be the same amount as is required for subpart TTTT of 40 CFR part 60 recordkeeping. As the recordkeeping in subpart TTTT of 40 CFR part 60 will be replaced by similar recordkeeping in subpart TTTTa of 40 CFR part 60 upon promulgation, this annual cost for recordkeeping will be maintained.

#### *N. Additional Solicitations of Comment and Proposed Requirements*

This section includes additional issues the Agency is specifically soliciting comment on. It also provides a summary of some of the key considerations the EPA is soliciting comment on with respect to the

<sup>511</sup> C\_2023\_1087\_1\_EN\_ACT\_part1\_v8.pdf. (europa.eu)

<sup>512</sup> European Commission, “Commission sets out rules for renewable hydrogen” Brussels, February 13, 2023. See: Hydrogen (europa.eu), Delegated regulation on Union methodology for RFNBOs. (europa.eu)

<sup>513</sup> <https://energyinnovation.org/wp-content/uploads/2023/04/Smart-Design-Of-45V-Hydrogen-Production-Tax-Credit-Will-Reduce-Emissions-And-Grow-The-Industry.pdf>.

<sup>514</sup> April 12, 2023, memorandum, “How annual matching for the Inflation Reduction Act’s (IRA) 45V clean hydrogen tax credit can accelerate progress towards the Biden administration’s decarbonization and clean hydrogen goals” signed by 23 companies, addressed to Treasury Secretary Janet Yellen, Energy Secretary Jennifer Granholm and Senior Advisor to the President for Clean Energy Innovation and Implementation Mr. John Podesta, indicated an openness to examine hourly EAC requirements in 2032 or earlier and asserted, “recent studies warn that overly stringent temporal matching would hinder the development of clean hydrogen industry.”

proposed CAA section 111(b) requirements.

### 1. CCS and Co-Firing Low-GHG Hydrogen as BSER for the Base Load Subcategory

As described above, the EPA is proposing to establish two subcategories with different standards for the base load subcategory, each based on a different BSER pathway. The first is based on a BSER of CCS with 90 percent capture by 2035. The second is based on a BSER of co-firing 30 percent (by volume) low-GHG hydrogen by 2032 and co-firing 96 percent (by volume) by 2038. (Both pathways include efficient equipment and operation and maintenance as an initial component of the BSER.) In other sections of this preamble, the EPA solicits comment on variations in the amount of emissions reduction and the dates for compliance for each pathway.

The EPA believes that if it finalizes a subcategory approach with different standards in which sources may choose between the two standards and BSER pathways, each must achieve environmentally comparable emission reductions. Thus, if the EPA determines based on all of the statutory considerations that CCS with 90 percent capture qualifies as the BSER for base load combustion sources, then co-firing hydrogen could qualify as well only if it also achieves comparable reductions. Because the emissions standards are technology neutral, if the two pathways can achieve the same emissions reductions at the same time, there would be no need to establish separate subcategories and standards as sources could adopt either BSER pathway to meet the standard. But the EPA also believes that these two technologies may achieve comparable emissions reductions at slightly different times, thus potentially necessitating two alternate standards. The EPA solicits comment on the differences in emissions reductions in both scale and time that would result from the two standards and BSER pathways, including how to calculate the different amounts of emission reductions, how to compare them, and what conclusions to draw from those differences. From the perspective of an individual turbine, the proposed co-firing with low-GHG hydrogen-based standard results in earlier emission reductions because it takes effect in 2032, three years before the CCS-based standard, but the low-GHG hydrogen-based standard could also result in fewer total emission reductions because the 90 percent emission rate reduction is not required until 2038, three years after the CCS-

based standard. Although early emission reductions have value in addressing climate change, it is the cumulative impact of the emission reductions that is of primary importance given the short time-scale over which those early reductions are occurring. The EPA also solicits comment on the potential benefits of prescribing two separate standards for new base load combustion turbines. Owners and operators of new combustion turbine EGUs are currently pursuing both CCS and co-firing with low-GHG hydrogen as approaches for reducing GHG emissions, and both require the development of infrastructure that may proceed at a different pace and scale and achieve emissions reductions on different timelines with respect to each technology. Although both CCS and co-firing with low-GHG hydrogen are, or are expected to be, broadly available throughout the United States, the EPA solicits comment on whether individual locations where new base load combustion turbines might be constructed might lend themselves more to one technology than the other (based on pipeline availability, proximity to hydrogen production or geologic sequestration sites, *etc.*). The EPA recognizes that the design of CAA section 111—whereby sources decide which emissions controls they use to meet standards of performance—provides sources with operational flexibility so long as they achieve the standard. A subcategory approach, however, may allow the EPA to consider the potentially differing scale and pace at which these technologies can achieve environmentally equivalent emissions reductions and whether there are characteristics of units that make one or the other pathways “best” for those types of units.

As an alternative to the proposed approach of two standards and BSER pathways for the base load subcategory, the EPA is soliciting comment on having a single standard, which would be based on CCS with 90 percent capture (along with efficiency as the initial component of the BSER). Under this alternative, the EPA would not establish a separate base load subcategory for combustion turbines that adopt the low-GHG hydrogen co-firing pathway.

The EPA solicits comment on whether finalizing a single, CCS-based standard for the baseload subcategory better reflects the more likely uses of hydrogen as a source of fuel in new combustion turbines. The EPA has proposed a standard for base load combustion turbines that adopt the low-GHG hydrogen co-firing in part because the

Agency understands a number of power companies are actively developing combustion turbines that are designed to co-fire hydrogen. However, the Agency recognizes that power companies may ultimately come to utilize low-GHG hydrogen as a storage fuel reserved for intermediate load combustion turbines that support variable renewable generation, rather than for combustion turbines that generate at base load. An approach in which the EPA establishes a single CCS-based second phase standard for base load combustion turbines, along with a second phase standard for intermediate load combustion turbines that is based on low-GHG hydrogen as a component of the BSER, would align with this potential scenario. In addition, if an owner or operator of a new combustion turbine does seek to utilize low-GHG hydrogen for base load generation, a single CCS-based second phase standard for base load combustion turbines would not preclude owners and operators from utilizing low-GHG hydrogen as a means of compliance. Owners/operators could also comply with a CCS-based standard by co-firing 96 percent (by volume) low-GHG hydrogen from the outset of the second phase—rather than the proposed approach that would delay requirements for this level of co-firing until 2038.

### 2. Co-Firing Low-GHG Hydrogen as BSER for Intermediate Load Combined Cycle and Simple Cycle Subcategories

The EPA is also soliciting comment on subcategorizing intermediate load combustion turbines into an intermediate load combined cycle subcategory and an intermediate load simple cycle subcategory. The BSER for both subcategories would be two components: (1) Highly efficient generation (either combined cycle technology or simple cycle technology, respectively) and (2) co-firing 30 percent (by volume) low-GHG hydrogen, with the first component applying when the source commences operation and the second component applying in the year 2032. Dividing the intermediate load subcategory into these two subcategories would assure that intermediate load combined cycle turbines would have a more stringent standard of performance—that is, expressed in a lower lb CO<sub>2</sub>/MWh—than intermediate load simple cycle turbines.

### 3. Integrated Onsite Generation and Energy Storage

Integrated equipment is currently included as part of the affected facility and the EPA is soliciting comment on the best approach to recognizing the

environmental benefits of onsite integrated non-emitting generation and energy storage. The EPA is proposing regulatory text to clarify that the output from integrated renewables is included as output when determining the NSPS emissions rate. The EPA is also proposing that the output from the integrated renewable generation is not included when determining the net electric sales for applicability purposes. In the alternative, the EPA is soliciting comment on whether instead of exempting the generation from the integrated renewables from counting toward electric sales, the potential output from the integrated renewables would be included when determining the design efficiency of the facility. Since the design efficiency is used when determining the electric sales threshold this would increase the allowable electric sales for subcategorization purposes. Including the integrated renewables when determining the design efficiency of the affected facility would have the impact of increasing the operational flexibility of owners/operators of intermediate load combustion turbines. Renewables typically have much lower 12-month capacity factors than the intermediate electric sales threshold so could allow the turbine engine itself to operate at a higher capacity factor while still being considered an intermediate load EGU. Conversely, if the integrated renewables operate at a 12-month capacity factor of greater than 20 percent that would reduce the ability of a peaking turbine engine to operate while still remaining in the low load subcategory. However, even if a combustion turbine engine itself were to operate at a capacity factor of less than 20 percent and become categorized as an intermediate load combustion turbine when the output from the integrated renewables are considered, the output from the integrated renewables could lower the emissions rate such that the affected facility would be in compliance with the intermediate load standard of performance.

For integrated energy storage technologies, the EPA is soliciting comment on including the rated output of the energy storage when determining the design efficiency of the affected facility. Similar to integrated renewables, this would increase the flexibility of owner/operators to operate at higher capacity factors while remaining in the low and intermediate load subcategories. The EPA is not proposing that the output from the energy storage be considered in either determining the NSPS emissions rate or

as net electric sales for subcategorization applicability purposes. While additional energy storage will allow for integration of additional variable renewable generation, the energy storage devices could be charged using grid supplied electricity that is generated from other types of generation. Therefore, this is not necessarily stored low-GHG electricity.

#### 4. Definition of System Emergency

40 CFR part 60, subpart TTTT (and the proposed 40 CFR part 60, subpart TTTTa) include a provision that electricity sold during hours of operation when a unit is called upon to operate due to a system emergency is not counted toward the percentage electric sales subcategorization threshold.<sup>515</sup> The EPA concluded that this exclusion is necessary to provide flexibility, to maintain system reliability, and to minimize overall costs to the sector (80 FR 64612; October 23, 2015). Some in the regulated community have informed the Agency that additional clarification on a system emergency would need to be determined and documented for compliance purposes. The intent is that the local grid operator would determine which EGUs are essential to maintain grid reliability. The EPA is soliciting comments on amending the definition of system emergency to clarify how it would be implemented. The current text is any abnormal system condition that the RTO, Independent System Operators (ISO) or control area Administrator determines requires immediate automatic or manual action to prevent or limit loss of transmission facilities or generators that could adversely affect the reliability of the power system and therefore call for maximum generation resources to operate in the affected area, or for the specific affected EGU to operate to avert loss of load.

#### 5. Definition of Natural Gas

40 CFR part 60, subpart TTTT (and the proposed 40 CFR part 60, subpart TTTTa) include a definition of natural gas. Natural gas is a fluid mixture of hydrocarbons (*e.g.*, methane, ethane, or propane), composed of at least 70 percent methane by volume or that has a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot), that maintains a gaseous state under ISO conditions.

<sup>515</sup> Electricity sold by units that are not called upon to operate due to a system emergency (*e.g.*, units already operating when the system emergency is declared) is counted toward the percentage electric sales threshold.

Finally, natural gas does not include the following gaseous fuels: Landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable CO<sub>2</sub> content or heating value. The EPA is soliciting comment on if the exclusions for specific gases such as landfill gas, etc. are necessary or if they should be deleted. If landfill gas, coal-derived gas, or other gases are processed to meet the methane and heating value content of pipeline quality natural gas they could be mixed into the pipeline network and it is the intent that this mixture be considered natural gas for the purposes of 40 CFR part 60, subpart TTTT and the proposed 40 CFR part 60, subpart TTTTa.

#### 6. Summary of Solicitation of Comment on BSER Variations

This section summarizes the variations on the subcategories and on BSER for combustion turbines and on which the EPA is soliciting comment. It is intended to highlight certain aspects of the proposal the Agency is soliciting comment on and is not intended to cover all aspects of the proposal.

For the low load subcategory, the EPA is soliciting comment on:

- An electric sales threshold of between 15 to 25 percent for all combustion turbines regardless of the specific design efficiency.
- An electric sales threshold based on three quarters of the design efficiency of the combustion turbine. This would result in electric sales thresholds of 18 to 22 percent for simple cycle turbines and 26 to 31 percent for combined cycle turbines.

- Applying a second component of BSER, co-firing 30 percent (by volume) low-GHG hydrogen by 2032.

For the intermediate load subcategory, the EPA is soliciting comment on:

- An efficiency-based standard of performance of between 1,000 to 1,200 lb CO<sub>2</sub>/MWh-gross.
- The use of steam injection as part of the first BSER component.
- An electric sales threshold based on 94 percent of the design efficiency. This would result in electric sales thresholds of 29 to 35 percent for simple cycle turbines and 40 to 49 percent for combined cycle turbines.
- A hydrogen co-firing range of 30 to 50 percent by volume as the second component of the BSER.
- Beginning implementation of the second component of the BSER (*i.e.*, hydrogen co-firing) as early as 2030.
- The second component of the BSER would establish separate subcategories

for simple and combined cycle intermediate load combustion turbines, both based on co-firing low-GHG hydrogen.

- Adding a third phase standard based on higher levels of low-GHG hydrogen co-firing by 2038.

For the base load subcategory, the EPA is soliciting comment on:

- An efficiency-based standard of performance of between 730 to 800 lb CO<sub>2</sub>/MWh-gross for large combustion turbines.

- An efficiency-based standard of performance of between 850 to 900 lb CO<sub>2</sub>/MWh-gross for small combustion turbines.

- Beginning implementation of the second component of the BSER (*i.e.*, CCS or hydrogen co-firing) as early as 2030.

- Beginning implementation of the third component of the co-firing low-GHG hydrogen-based BSER earlier than 2038.

- Whether the third component of the hydrogen BSER should be 96 percent by volume or a lower volume—note that if it is a lower volume that raises issues as to whether the BSER would be appropriate if EPA found that a CCS BSER of 90% for NGCCs was generally applicable

- A hydrogen co-firing range of 30 to 50 percent as the second component of the BSER for combustion turbines co-firing hydrogen.

- A single standard based on either a CCS-based BSER or a co-firing low-GHG-hydrogen based BSER for all base load combustion turbines.

- A carbon capture rate of 90 to 95 percent as the second component of the CCS-based BSER.

#### O. Compliance Dates

The EPA is proposing that affected sources that commenced construction or reconstruction after May 23, 2023, would need to meet the requirements of 40 CFR part 60, subpart TTTT<sub>a</sub> upon startup of the new or reconstructed affected facility or the effective date of the final rule, whichever is later. This proposed compliance schedule is consistent with the requirements in section 111 of the CAA.

### VIII. Requirements for New, Modified, and Reconstructed Fossil Fuel-Fired Steam Generating Units

#### A. 2018 NSPS Proposal

The EPA promulgated NSPS for GHG emissions from fossil fuel-fired steam generating units in 2015. 80 FR 64510 (October 23, 2015). As discussed in section V.B.2 of this preamble, on December 20, 2018, the EPA proposed

amendments that would revise the determination of the BSER for control of GHG emissions from newly constructed coal-fired steam generating units in 40 CFR part 60, subpart TTTT (83 FR 65424; December 20, 2018). The EPA is not reopening for comment or soliciting comment on the 2018 NSPS Proposal, and intends to further address it in a separate action.

#### 1. Additional Amendments

The EPA is proposing multiple less significant amendments. These amendments would be either strictly editorial and would not change any of the requirements of 40 CFR part 60, subpart TTTT or are intended to add additional compliance flexibility. The proposed amendments would also be incorporated into the proposed subpart TTTT<sub>a</sub>. For additional information on these amendments, see the redline strikeout version of the rule showing the proposed amendments. First, the EPA is proposing editorial amendments to define acronyms the first time they are used in the regulatory text. Second, the EPA is proposing to add International System of Units (SI) equivalent for owners/operators of stationary combustion turbines complying with a heat input-based standard. Third, the EPA is proposing to fix errors in the current 40 CFR part 60, subpart TTTT regulatory text referring to part 63 instead of part 60. Fourth, as a practical matter owners/operators of stationary combustion turbines subject to the heat input-based standard of performance need to maintain records of electric sales to demonstrate that they are not subject to the output-based standard of performance. Therefore, the EPA is proposing to add a specific requirement that owner/operators maintain records of electric sales to demonstrate they did not sell electricity above the threshold that would trigger the output-based standard. Next, the EPA is proposing to update the ANSI, ASME, and ASTM test methods to include more recent versions of the test methods. Finally, the EPA is proposing to add additional compliance flexibilities for EGUs either serving a common electric generator or using a common stack. Specifically, for EGUs serving a common electric generator, the EPA is soliciting comment on whether the Administrator should be able to approve alternate methods for determining energy output. For EGUs using a common stack, the EPA is soliciting comment on whether specific procedures should be added for apportioning the emissions and/or if the Administrator should be able to approve site-specific alternate procedures.

#### B. Eight-Year Review of NSPS for Fossil Fuel-Fired Steam Generating Units

##### 1. New Construction and Reconstruction

The EPA promulgated NSPS for GHG emissions from fossil fuel-fired steam generating units in 2015. As noted in section IV.F, the EPA is not aware of any plans by any companies to undertake new construction of a new fossil fuel-fired steam generating unit, or to undertake a reconstruction of an existing fossil fuel-fired steam generating unit, that would be subject to the 2015 NSPS for steam generating units. Accordingly, the EPA does not consider it necessary, nor a good use of agency resources, to review the NSPS for new construction or reconstruction. See “New Source Performance Standards (NSPS) Review: Advanced notice of proposed rulemaking,” 76 FR 65653, 65658 (October 24, 2011) (suggesting it may not be necessary for the EPA to review an NSPS when no new construction, modification, or reconstruction is expected in the source category). Should events change and the EPA learns that companies plan to undertake construction of a new fossil fuel-fired steam generating unit or reconstruction of an existing fossil fuel-fired steam generating unit, the EPA would consider reviewing these standards.

##### 2. Modifications

In the 2015 NSPS, the EPA issued final standards for a steam generating unit that implements a “large modification,” defined as a physical change, or change in the method of operation, that results in an increase in hourly CO<sub>2</sub> emissions of more than 10 percent when compared to the source’s highest hourly emissions in the previous 5 years. Such a modified steam generating unit is required to meet a unit-specific CO<sub>2</sub> emission limit determined by that unit’s best demonstrated historical performance (in the years from 2002 to the time of the modification). The 2015 NSPS did not include standards for a steam generating unit that implements a “small modification,” defined as a change that results in an increase in hourly CO<sub>2</sub> emissions of less than or equal to 10 percent when compared to the source’s highest hourly emissions in the previous 5 years. 80 FR 64514 (October 23, 2015).

In the 2015 NSPS, the EPA explained its basis for promulgating this rule as follows. The EPA has historically been notified of only a limited number of NSPS modifications involving fossil steam generating units and therefore predicted that very few of these units



would trigger the modification provisions and be subject to the proposed standards. Given the limited information that we have about past modifications, the agency has concluded that it lacks sufficient information to establish standards of performance for all types of modifications at steam generating units at this time. Instead, the EPA has determined that it is appropriate to establish standards of performance at this time for larger modifications, such as major facility upgrades involving, for example, the refurbishing or replacement of steam turbines and other equipment upgrades that result in substantial increases in a unit's hourly CO<sub>2</sub> emissions rate. The agency has determined, based on its review of public comments and other publicly available information, that it has adequate information regarding the types of modifications that could result in large increases in hourly CO<sub>2</sub> emissions, as well as on the types of measures available to control emissions from sources that undergo such modifications, and on the costs and effectiveness of such control measures, upon which to establish standards of performance for modifications with large emissions increases at this time. *Id.* at 64597–98. The EPA is not reopening any aspect of these determinations concerning modifications in the 2015 NSPS, except, as noted below, for the BSER and associated requirements for large modifications.

Because the EPA has not promulgated a NSPS for small modifications, any existing steam generating unit that undertakes a change that increases its hourly CO<sub>2</sub> emissions rate by 10 percent or less would continue to be treated as an existing source that is subject to the CAA section 111(d) requirements being proposed today.

With respect to large modifications, we explained in the 2015 NSPS that they are rare, but there is record evidence indicating that they may occur. *Id.* at 64598. Because the EPA is proposing requirements for existing sources that are, on their face, more stringent than the requirements for large modifications, the EPA believes it is appropriate to review and revise the latter requirements to minimize the anomalous incentive that an existing source could have to undertake a large modification for the purpose of avoiding the more stringent requirements that it would be subject to if it remained an existing source. Accordingly, the EPA is proposing to revise the BSER for large modifications to mirror the BSER for the subcategory of coal-fired steam

generating units that plan to operate past December 31, 2039, that is, the use of CCS with 90 percent capture of CO<sub>2</sub>. The EPA believes that it is reasonable to assume that any existing source that invests in a physical change or change in the method of operation that would qualify as a large modification expects to continue to operate past 2039. Accordingly, the EPA proposes that CCS with 90 percent capture qualifies as the BSER for such a source for the same reasons that it qualifies as the BSER for existing sources that plan to operate past December 31, 2039. The EPA discusses these reasons in section X.D.1.a. The EPA is proposing to determine that CCS with 90 percent capture qualifies as the BSER for large modifications, and not the controls determined to be the BSER in the 2015 NSPS, due to the recent reductions in the cost of CCS. The EPA does not believe there are any considerations relative to a source undertaking a large modification that point towards a control system other than CCS with 90 percent capture qualifying as the BSER. The Agency solicits comment on this issue.

By the same token, the EPA is proposing that the degree of emission limitation associated with CCS with 90 percent capture is an 88.4 percent reduction in emission rate (lb CO<sub>2</sub>/MWh-gross basis), the same as proposed for existing sources with CCS with 90 percent capture. See section X.D.1.a.iv. Based on this degree of emission limitation, the EPA is proposing that the standard of performance for steam generating units that undertake large modifications after the date of publication of this proposal is a unit-specific emission limit determined by an 88.4 percent reduction in the unit's best historical annual CO<sub>2</sub> emission rate (from 2002 to the date of the modification). The EPA is proposing that an owner/operator of a modified steam generating unit comply with the proposed emissions rate upon startup of the modified affected facility or the effective date of the final rule, whichever is later. The EPA is proposing the same testing, monitoring, and reporting requirements as are currently in 40 CFR part 60, subpart TTTT.

### C. Projects Under Development

Finally, during the 2015 NSPS rulemaking, the EPA identified the Plant Washington project in Georgia and the Holcomb 2 project in Kansas as EGU “projects under development” based on representations by developers that the projects had commenced construction prior to the proposal of the 2015 NSPS

and, thus, would not be new sources subject to the final NSPS (80 FR 64542–43; October 23, 2015). The EPA did not set a performance standard at the time but committed to doing so if new information about the projects became available. These projects were never constructed and are no longer expected to be constructed.

The Plant Washington project was to be an 850-MW supercritical coal-fired EGU. The Environmental Protection Division (EPD) of the Georgia Department of Natural Resources issued air and water permits for the project in 2010 and issued amended permits in 2014.<sup>516</sup><sup>517</sup><sup>518</sup> In 2016, developers filed a request with the EPD to extend the construction commencement deadline specified in the amended permit, but the director of the EPD denied the request, effectively canceling the approval of the construction permit and revoking the plant's amended air quality permit.<sup>519</sup>

The Holcomb 2 project was intended to be a single 895-MW coal-fired EGU and received permits in 2009 (after earlier proposals sought approval for development of more than one unit). In 2020, after developers announced they would no longer pursue the Holcomb 2 expansion project, the air permits were allowed to expire, effectively canceling the project.

For these reasons, the EPA is proposing to remove these projects under the applicability exclusions in subpart TTTT.

## IX. Proposed ACE Rule Repeal

The EPA is proposing to repeal the ACE Rule. A general summary of the ACE Rule, including its regulatory and judicial history, is included in section V.B of this preamble. The repeal of the ACE Rule is intended to stand alone and be severable from the other aspects of this rule. The EPA proposes to repeal the ACE Rule on three grounds that together, and each independently, justify the rule's repeal. First, as a policy matter, the EPA believes that the suite of heat rate improvements (HRI) the ACE Rule selected as the BSER should be reexamined and are no longer an appropriate BSER for existing coal-fired EGUs. The EPA concludes that the suite of HRI set forth in the ACE Rule provide

<sup>516</sup> <https://www.gpb.org/news/2010/07/26/judge-rejects-coal-plant-permits>.

<sup>517</sup> <https://www.southernenvironment.org/press-release/court-rules-ga-failed-to-set-safe-limits-on-pollutants-from-coal-plant/>.

<sup>518</sup> <https://permitsearch.gaepd.org/permit.aspx?id=PDF-OP-22139>.

<sup>519</sup> [https://www.southernenvironment.org/wp-content/uploads/legacy/words\\_docs/EPD\\_Plant\\_Washington\\_Denial\\_Letter.pdf](https://www.southernenvironment.org/wp-content/uploads/legacy/words_docs/EPD_Plant_Washington_Denial_Letter.pdf).

negligible CO<sub>2</sub> reductions at best and, in many cases, could increase CO<sub>2</sub> emissions because of the rebound effect, as explained in section X.D.5.a. These concerns taken together, along with new evidence, and the EPA's experience in implementing the ACE Rule, cast doubt on the ACE Rule's minimal projected emission reductions and increase the likelihood that the ACE Rule could make CO<sub>2</sub> pollution worse. As a result, the EPA has determined it is appropriate to repeal the rule, and to reevaluate whether other technologies constitute the BSER.

Second, the ACE Rule rejected CCS and natural gas co-firing as the BSER for reasons that no longer apply. This rule should be repealed so that EPA may determine the BSER based on evaluating all the candidate technologies. Since the ACE Rule was promulgated, changes in the power industry, developments in the costs of controls, and new Federal subsidies have made these other technologies more broadly available and less expensive. The EPA is now proposing that these technologies are the BSER for certain subcategories of sources, as described in section X of this preamble.

Third, the EPA concludes that the ACE Rule conflicted with CAA section 111 and the EPA's implementing regulations because it did not specifically identify the BSER or the "degree of emission limitation achievable through application of the [BSER]," but set forth an indeterminate range of values. Thus, the rule did not provide the States with adequate guidance on the degree of emission limitation that must be reflected in the standards of performance so that a State plan would be approvable by the EPA. Along with this, the ACE Rule also improperly departed from the statutory framework of CAA section 111(d) by categorically precluding States from allowing their sources to comply with standards of performance by trading or averaging. Properly construed, CAA section 111(d) gives States discretion to provide sources with certain compliance flexibilities, including trading or averaging in appropriate circumstances so long as the other requirements of section 111 are met as described below.

#### A. Summary of Selected Features of the ACE Rule

The ACE Rule determined that the BSER for coal-fired EGUs was a "list of 'candidate technologies,'" consisting of seven types of the "most impactful HRI technologies, equipment upgrades, and best operating and maintenance practices," (84 FR 32536; July 8, 2019),

including, among others, "Boiler Feed Pumps" and "Redesign/Replace Economizer." Id. at 32537 (table 1). The rule provided a range of improvements in heat rate that each of the seven "candidate technologies" could achieve if applied to coal-fired EGUs of different capacities. For six of the technologies, the expected level of improvement in heat rate ranged from 0.1–0.4 percent to 1.0–2.9 percent, and for the seventh technology, "Improved Operating and Maintenance (O&M) Practices," the range was "0 to >2%." Id. The ACE Rule explained that States must review each of their designated facilities, on either a source-by-source or group-of-sources basis, and "evaluate the applicability of each of the candidate technologies." Id. at 32550. States were to use the list of HRI technologies "as guidance but will be expected to conduct unit-specific evaluations of HRI potential, technical feasibility, and applicability for each of the BSER candidate technologies." Id. at 32538.

The ACE Rule emphasized that States had "inherent flexibility" in undertaking this task with "a wide range of potential outcomes." Id. at 32542. The ACE Rule provided that States could conclude that it was not appropriate to apply some technologies. Id. at 32550. Moreover, if a State did decide to apply a particular technology to a particular source, the State could determine the level of heat rate improvement from the technology to be anywhere within the range that the EPA had identified for that technology, or even outside that range. Id. at 32551. The ACE Rule stated that after the State evaluated the technologies and calculated the amount of HRI in this way, it should determine the standard of performance that the source could achieve, Id. at 32550, and then adjust that standard further based on the application of source-specific factors such as remaining useful life. Id. at 32551.

The ACE Rule then identified the process by which States had to take these actions. States must "evaluat[e] each" of the seven candidate technologies and provide a summary, which "include[s] an evaluation of the . . . degree of emission limitation achievable through application of the technologies." Id. at 32580. Then, the State must provide a variety of information about each power plant, including, the plant's "annual generation," "CO<sub>2</sub> emissions," "[f]uel use, fuel price, and carbon content," "operation and maintenance costs," "[h]eat rates," "[e]lectric generating capacity," and the "timeline for implementation," among other

information. Id. at 32581. The EPA explained that the purpose of this data was to allow the Agency to "adequately and appropriately review the plan to determine whether it is satisfactory." Id. at 32558.

The ACE Rule projected a very low level of overall emission reduction if States generally applied the set of candidate technologies to their sources. The rule was projected to achieve a less-than-1-percent reduction in power-sector CO<sub>2</sub> emissions by 2030.<sup>520</sup> Further, the EPA also projected that it would increase CO<sub>2</sub> emissions from power plants in 15 States and the District of Columbia because of the "rebound effect" as sources implemented HRI measures and became more efficient. This phenomenon is explained in more detail in section X.D.5.a.<sup>521</sup>

The ACE Rule considered several other control measures as the BSER, including co-firing with natural gas and CCS, but rejected them. The ACE Rule rejected co-firing with natural gas primarily on grounds that it was too costly in general, and especially for sources that have limited or no access to natural gas. 84 FR 32545 (July 8, 2019). The rule also concluded that generating electricity by co-firing natural gas in a utility boiler would be an inefficient use of the gas when compared to combusting it in a combustion turbine. Id. The ACE Rule rejected CCS on grounds that it was too costly. Id. at 32548. The rule identified the high capital and operating costs of CCS and noted the fact that the IRC 45Q tax credit, as it then applied, would provide only limited benefit to sources. Id. at 32548–49.

In addition, the ACE Rule interpreted CAA section 111 to preclude States from allowing their sources to trade or average to demonstrate compliance with their standards of performance. Id. at 32556–57.

#### B. Developments Undermining ACE Rule's Projected Emission Reductions

The EPA's first basis for proposing to repeal the ACE Rule is that there is doubt that the rule would achieve even the limited emissions reductions projected at the time of promulgation if it were implemented now, and implementation could increase CO<sub>2</sub>

<sup>520</sup> ACE Rule RIA 3–11, table 3–3.

<sup>521</sup> The rebound effect becomes evident by comparing the results of the ACE Rule IPM runs for the 2018 reference case, EPA, *IPM State-Level Emissions: EPA v6 November 2018 Reference Case*, EPA–HQ–OAR–2017–0355–26720, and for the "Illustrative ACE Scenario, *IPM State-Level Emissions: Illustrative ACE Scenario*, EPA–HQ–OAR–2017–0355–26724.

emissions instead. Thus, the EPA concludes that as a matter of the Agency's policy judgment it is appropriate to repeal the rule and evaluate whether other technologies qualify as the BSER given new factual developments. This action is consistent with the Supreme Court's instruction in *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009), where the Supreme Court explained that an agency issuing a new policy "need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one." Instead, "it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates." *Id.* at 514–16 (emphasis in original; citation omitted).

Two factors, taken together, undermine the ACE Rule's projected emission reductions and create the risk that implementation of the ACE Rule could increase—rather than reduce—CO<sub>2</sub> emissions from coal-fired EGUs. First, HRI technologies achieve only limited GHG emission reductions. The ACE Rule projected that if States generally applied the set of candidate technologies to their sources, the rule would achieve a less-than-1-percent reduction in power-sector CO<sub>2</sub> emissions by 2030.<sup>522</sup> The EPA now doubts that even these minimal reductions would be achieved. The ACE Rule's projected benefits were premised in part on a 2009 technical report by Sargent & Lundy that evaluated the effects of HRI technologies. In 2023, Sargent & Lundy issued an updated report which details that the HRI selected as the BSER in the ACE Rule would bring fewer emissions reductions than estimated in 2009. The 2023 report concludes that, with few exceptions, HRI technologies are less effective at reducing CO<sub>2</sub> emissions than assumed in 2009. And most sources had already optimized application of HRIs, and so there are fewer opportunities to reduce emissions than previously anticipated.

Second, for a subset of sources, HRI are likely to cause a rebound effect leading to an increase in GHG emissions for those sources for the reasons explained in section X.D.5.a. The estimate of the rebound effect was quite pronounced in the ACE Rule's own analysis—the rule projected that it would increase CO<sub>2</sub> emissions from power plants in 15 States and the District of Columbia. Specifically, the EPA prepared modeling projections to understand the impacts of the ACE

Rule. These projections assumed that, consistent with the rule, sources would impose a small degree of efficiency improvements. The modeling showed that the rule would not result in absolute emissions reductions across all affected sources, and some would instead increase absolute emissions. See EPA, *IPM State-Level Emissions: EPA v6 November 2018 Reference Case*, EPA–HQ–OAR–2017–0355–26720 (providing ACE reference case); *IPM State-Level Emissions: Illustrative ACE Scenario*, EPA–HQ–OAR–2017–0355–26724 (providing illustrative scenario).

Despite the fact that the ACE Rule was projected to increase emissions in many States, these States were nevertheless obligated under the rule to assemble detailed State plans that evaluated available technologies and the performance of each existing coal-fired power plant, as described in section IX.A of this preamble. For example, the State was required to analyze the plant's "annual generation," "CO<sub>2</sub> emissions," "[f]uel use, fuel price, and carbon content," "operation and maintenance costs," "[h]eat rates," "[e]lectric generating capacity," and the "timeline for implementation," among other information. 84 FR 32581 (July 8, 2019). This evaluation and the imposition of standards of performance was mandated even though the State plan would lead to an *increase* rather than decrease CO<sub>2</sub> emissions.

In this context, the data undermining the ACE Rule's limited, projected emission reductions along with the risk that implementation of the rule could increase CO<sub>2</sub> pollution raises doubts that the HRI satisfies the statutory criteria to constitute the BSER for this category of sources. The core element of the BSER analysis is whether the emission reduction technology selected reduces emissions. See *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 441 (D.C. Cir. 1973) (noting "counter productive environmental effects" questioned whether the BSER selected was in fact the "best").

The EPA's experience in implementing the ACE Rule reinforces these concerns. After the ACE Rule was promulgated, one State drafted a State plan that set forth a standard of performance that allowed the affected source to increase its emission rate. The draft partial plan would have applied to one source, the Longview Power, LLC facility, and would have established a standard of performance, based on the State's consideration of the "candidate technologies," that was higher (*i.e.*, less stringent) than the source's historical emission rate. Thus, the draft plan would not have achieved any emission

reductions from the source, and instead would have allowed the source to *increase* its emissions, if it was finalized.<sup>523</sup>

Because there is doubt that the minimal reductions projected by the ACE Rule would be achieved, and because the rebound effect could lead to an increase in emissions for many sources in many States, the EPA concludes that it is appropriate to repeal the ACE Rule and reevaluate the BSER for this category of sources.

### C. Developments Showing That Other Technologies Are the BSER for This Source Category

Since the promulgation of the ACE Rule in 2019, the factual underpinnings of the rule have changed in several ways, and lead EPA to propose that HRI are not the BSER for coal-fired power plants.

Along with changes in the anticipated reductions from HRI, it makes sense for the EPA to reexamine the BSER because the costs of two control measures, co-firing with natural gas and CCS, have fallen substantially for sources with longer-term operating horizons such that the EPA may determine that these measures satisfy the requirements for the BSER for the source categories identified below. As noted, the ACE Rule rejected natural gas co-firing as the BSER on grounds that it was too costly and would lead to inefficient use of natural gas. But as discussed in section X.D.2.b.ii of this preamble, the costs of natural gas co-firing have substantially decreased, and the EPA is proposing that the costs of co-firing 40 percent by volume natural gas are reasonable for existing coal-fired EGUs in the medium-term subcategory, *i.e.*, units that plan to operate during, in general, the 2032 to 2040 period. In addition, the changed circumstances, including that natural gas is available in greater amounts, and there are fewer coal-fired EGUs, mitigates the concerns the ACE Rule identified about inefficient use of natural gas. See section X.D.2.b.iii(B).

Similarly, the ACE Rule rejected CCS as the BSER on grounds that it was too costly. But as discussed in section X.D.1.b.ii of this preamble, the costs of CCS have substantially declined, partly because of developments in the technology that have lowered capital costs, and partly because the IRA extended and increased the IRC section 45Q tax credit so that it defrays a higher

<sup>523</sup> West Virginia CAA § 111(d) Partial Plan for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (EGUs), <https://dep.wv.gov/daq/publicnoticeandcomment/Documents/Proposed%20WV%20ACE%20State%20Partial%20Plan.pdf>.

<sup>522</sup> ACE Rule RIA 3–11, table 3–3.

portion of the costs of CCS.

Accordingly, for coal-fired EGUs that will continue to operate past 2040, the EPA is proposing that the costs of CCS, which have fallen to approximately \$7–\$12/MWh, are reasonable.

The reductions from these two technologies are substantial. For long-term coal-fired steam generating units, the BSER of 90 percent capture CCS results in substantial CO<sub>2</sub> emissions reductions amounting to emission rates that are 88.4 percent lower on a lb/MWh-gross basis and 87.1 percent lower on a lb/MWh-net basis compared to units without capture, as described in section X.D.4 of this preamble. And for the BSER for medium-term units, 40 percent natural gas co-firing achieves reductions of 16 percent, as described in section X.D.2.b.iv of this preamble.

Given the availability of more effective, cost-reasonable technology, the EPA concludes that HRIs are not the BSER for all coal-fired EGUs.

The EPA is thus proposing to adopt a new policy and change its regulatory scheme for coal-fired power plants. As discussed in section X.C.3 of this preamble, the EPA is proposing to subcategorize coal-fired power plants according to the time that they will continue to operate. For sources in the imminent-term and near-term subcategories—which include sources that, in general, have federally enforceable commitments to permanently cease operations by 2032 or 2035, respectively—the EPA is proposing that the BSER is routine methods of operation and maintenance, with associated presumptive standards of performance that do not permit an increased emission rate and are not anticipated to have a rebound effect; and the EPA is soliciting comment on whether co-firing some amount of natural gas should be part of the BSER. For sources in the medium-term subcategory—which includes sources that are not in the other subcategories and that have a federally enforceable commitment to permanently cease operations by 2040—the EPA is proposing that the BSER is co-firing 40 percent by volume natural gas. The EPA concludes this control measure is appropriate because it achieves substantial reductions at reasonable cost. In addition, the EPA believes that because a large supply of natural gas is available, devoting part of this supply for fuel for a coal-fired steam generating unit in place of a percentage of the coal burned at the unit is an appropriate use of natural gas and will not adversely impact the energy system, as described in section X.D.2.b.iii(B) of this preamble.

For sources in the long-term subcategory—which includes sources that do not have a federally enforceable commitment to permanently cease operations by 2040—the EPA is proposing that the BSER is CCS with 90 percent capture of CO<sub>2</sub>. The EPA believes that this control measure is appropriate because it achieves substantial reductions at reasonable cost, as described in section X.D.1.c of this preamble.

The EPA is not proposing HRI as the BSER for any coal-fired EGUs. As discussed in section X.D.5.a, the EPA does not consider HRIs an appropriate BSER for the imminent-term and near-term subcategories because these technologies would achieve few, if any, emissions reductions and may increase emissions due to the rebound effect. The EPA is proposing to reject HRI as the BSER for the medium-term and long-term subcategories because HRI could also lead to a rebound effect. Most importantly, changed circumstances show that co-firing natural gas and CCS are available at reasonable cost, and will achieve more GHG emissions reductions. Accordingly, the EPA believes that HRI do not qualify as the BSER for any coal-fired EGUs, and that other approaches meet the statutory standard. For these reasons, the EPA proposes to repeal the ACE Rule.

#### *D. Insufficiently Precise Degree of Emission Limitation Achievable From Application of the BSER*

The third independent reason why the EPA is proposing to repeal the ACE Rule is that the rule did not identify with sufficient specificity the BSER or the degree of emission limitation achievable through the application of the BSER. Thus, States lacked adequate guidance on the BSER they should consider and level of emission reduction that the standards of performance must achieve. The ACE Rule determined the BSER to be a suite of HRI “candidate technologies,” but did not identify with specificity the degree of emission limitation States should apply in developing standards of performance for their sources. As a result, the ACE Rule conflicted with CAA section 111 and the implementing regulations, and thus failed to provide States adequate guidance so that they could ensure that their State plans were satisfactory and approvable by the EPA.

CAA section 111 and the EPA’s long-standing implementing regulations establish a clear process for the EPA and States to regulate emissions of certain air pollutants from existing sources. “The statute directs EPA to (1) ‘determine[ ],’ taking into account

various factors, the ‘best system of emission reduction which . . . has been adequately demonstrated,’ (2) ascertain the ‘degree of emission limitation achievable through the application’ of that system, and (3) impose an emissions limit on new stationary sources that ‘reflects’ that amount.” *West Virginia v. EPA*, 142 S. Ct. 2587, 2601 (2022) (quoting 42 U.S.C. 7411(d)). Further, “[a]lthough the States set the actual rules governing existing power plants, EPA itself still retains the primary regulatory role in Section 111(d) . . . [and] decides the amount of pollution reduction that must ultimately be achieved.” *Id.* at 2602.

Once the EPA makes these determinations, the State must establish “standards of performance” for its sources that are based on the degree of emission limitation that the EPA determines in the emissions guidelines. CAA section 111(a)(1) makes this clear through its definition of “standard of performance” as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the [BSER].” After the EPA determines the BSER, 40 CFR 60.22(b)(5), and the degree of emission limitation achievable from application of the BSER, “the States then submit plans containing the emissions restrictions that they intend to adopt and enforce in order not to exceed the permissible level of pollution established by EPA.” 142 S. Ct. at 2602 (citing 40 CFR 60.23, 60.24; 42 U.S.C. 7411(d)(1)).

The EPA then reviews the plan and approves it if the standards of performance are “satisfactory,” under CAA section 111(d)(2)(A). The EPA’s long-standing implementing regulations make clear that the EPA’s basis for determining whether the plan is “satisfactory” includes that the plan must contain “emission standards . . . no less stringent than the corresponding emission guideline(s).” 40 CFR 60.24(c). The EPA’s revised implementing regulations contain the same requirement. 40 CFR 60.24a(c). In addition, under CAA section 111(d)(1), in “applying a standard of performance to any particular source” a State may consider, “among other factors, the remaining useful life of the existing source to which such standard applies.” This is also known as the RULOF provision and is discussed in section XII.D.2.

In the ACE Rule, the EPA recognized that the CAA required it to determine the BSER and identify the degree of emission limitation achievable through application of the BSER. 84 FR 32537

(July 8, 2019). But the rule did not make those determinations. Rather, the ACE Rule described the BSER as a list of “candidate technologies.” And the rule described the degree of emission limitation achievable by application of the BSER as ranges of reductions from the HRI technologies. The rule thus shifted the responsibility for determining the BSER and degree of emission limitation achievable from the EPA to the States. Accordingly, the ACE Rule did not meet the CAA section 111 requirement that the EPA determine the BSER or the degree of emission limitation from application of the BSER.

As described above, the ACE Rule identified the HRI in the form of a list of seven “candidate technologies,” accompanied by a wide range of percentage improvements to heat rate that these technologies could provide. Indeed, for one of them, improved O&M practices (that is, operation and management practices), the range was “0 to >2%”, which is effectively unbounded. 84 FR 32537 (table 1) (July 8, 2019). The ACE Rule was clear that this list was simply the starting point for a State to calculate the standards of performance for its sources. That is, the seven sets of technologies were “candidate[s]” that the State could, but was not required to, apply and if the State did choose to apply one or more of them, the State could do so in a manner that yielded any percentage of heat rate improvement within the range that the EPA identified, or even outside that range, if the State chose. Thus, as a practical matter, the ACE Rule did not determine the BSER or any degree of emission limitation from application of the BSER, and so States had no guidance on how to craft approvable State plans. In this way, EPA effectively abdicated its responsibilities, and directed each State to determine for its sources what the BSER would be (that is, which HRI technologies should be applied to the source and with what intensity), and, based on that, what the degree of emission limitation achievable by application of the BSER. See 84 FR 32537–38 (July 8, 2019).

The only constraints that the ACE Rule imposed on the States were procedural ones, and those did not give the EPA any benchmark to determine whether a plan could be approved or give the States any certainty on whether their plan would be approved. As noted above, when a State submitted its plan, it needed to show that it evaluated each candidate technology for each source or group of sources, explain how it determined the degree of emission limitation achievable, and include data about the sources. But because the ACE

Rule did not identify a BSER or include a degree of emission limitation that the standards must reflect, the States lacked specific guidance on how to craft adequate standards of performance, and the EPA had no benchmark against which to evaluate whether a State’s submission was “satisfactory” under CAA section 111(d)(2)(A). Thus, the EPA’s review of State plans was essentially a standardless exercise, notwithstanding the Agency’s longstanding view that it was “essential” that “EPA review . . . [state] plans for their substantive adequacy.” 40 FR 53342–43 (November 17, 1975). In 1975, the EPA explained that it was not appropriate to limit its review based “solely on procedural criteria” because otherwise “states could set extremely lenient standards . . . so long as EPA’s procedural requirements were met.” Id. at 53343.

Finally, the ACE Rule’s approach to determining the BSER and degree of emission limitation departed from prior emission guidelines under CAA section 111(d), in which the EPA included a numeric degree of emission limitation. See, e.g., 42 FR 55796, 55797 (October 18, 1977) (limiting emission rate of acid mist from sulfuric acid plants to 0.25 grams per kilogram of acid); 44 FR 29828, 29829 (May 22, 1979) (limiting concentrations of total reduced sulfur from most of the subcategories of kraft pulp mills, such as digester systems and lime kilns, to 5, 20, or 25 ppm over 12-hour averages); 61 FR 9905, 9919 (March 12, 1996) (limiting concentration of non-methane organic compounds from solid waste landfills to 20 parts per million by volume or 98-percent reduction). In the ACE Rule, the EPA did not grapple with this change in position as required by *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009), or explain why it was appropriate to provide a boundless degree of emission limitation achievable in this context.

For this reason, the EPA proposes to repeal the ACE Rule. Its failure to determine the BSER and the associated degree of emission limitation achievable from application of the BSER deviated from CAA section 111 and the implementing regulations. Without these determinations, the ACE Rule lacked any benchmark that would guide the States in developing their State plans, and by which the EPA could determine whether those State plans were satisfactory.

#### *E. ACE Rule’s Preclusion of Emissions Trading or Averaging*

While not an independent basis for repeal, the ACE Rule also interpreted

CAA section 111(d) to bar States from allowing emissions trading or averaging among their sources in all cases, which further shows that the ACE Rule misconstrued section 111(d) and the appropriate roles for the EPA and for the States. A trading program might allocate allowances authorizing a particular level of emissions; a facility would not need to reduce its emissions so long as it traded for sufficient allowances. And an averaging program, for example, might require a group of facilities to reduce their average emissions to a particular level. So long as some facilities reduced their emissions sufficiently below that level, it would not be necessary for every facility to reduce its emissions. Cf. *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 863 n.37 (1984) (explaining the “‘bubble’ or ‘netting’ concept). CAA section 111(d) accords States discretion in developing State plans, and allows States to include compliance flexibilities like trading or averaging in circumstances the EPA has determined are appropriate, as long as the plan achieves equivalent emissions reductions to the EPA’s emission guidelines. The ACE Rule’s legal interpretation that CAA section 111(d) always precludes the State from adopting those flexibilities was incorrect.

Under CAA section 111, EPA promulgates emission guidelines that identify the degree of emission limitation achievable through the application of the BSER as determined by the Administrator. Each State must then “submit to the Administrator a plan” to achieve the degree of emission limitation identified by EPA. 42 U.S.C. 7411(d)(a). That plan must “establish [ ] standards of performance for any existing source” that emits certain air pollutants, and also “provide [ ] for the implementation and enforcement of such standards of performance.” Under CAA section 111(a)(1), a “standard of performance” is defined as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the [BSER].” Although such standards of performance must “reflect [ ] the degree of emission limitation achievable through the application of the [BSER],” 42 U.S.C. 7411(a)(1), States need not compel regulated sources to adopt the particular components of the BSER itself.

The ACE Rule interpreted CAA section 111(a)(1) and (d) to preclude States from allowing their sources to trade or average to demonstrate compliance with their standards of performance. 84 FR 32556–57 (July 8,

2019). The ACE Rule based this interpretation on its view that CAA section 111 limits the type of “system” that the EPA may select as the BSER to “measures that apply at and to an individual source and reduce emissions from that source.” *Id.* at 32523–24. The ACE Rule also concluded that the compliance measures the States include in their plans “should correspond with the approach used to set the standard in the first place,” and therefore must also be limited to measures that apply at and to an individual source and reduce emissions from that source. *Id.* at 32556.

In its recently published notice of proposed rulemaking to amend the CAA section 111(d) implementing regulations, the EPA has proposed to determine that the ACE Rule’s legal interpretation as to the type of “system” that may be selected as a BSER, and the universal prohibition of trading and averaging, was incorrect. “Implementing Regulations under 40 CFR part 60 Subpart Ba Adoption and Submittal of State Plans for Designated Facilities: Proposed Rule,” 87 FR 79176, 79207–79208 (December 23, 2022). As discussed in that document, no provision in CAA section 111(d), by its terms, precludes States from having flexibility in determining which measures will best achieve compliance with the EPA’s emission guidelines.

Specifically, the plain language of section 111(d) does not affirmatively bar States from considering averaging and trading as a compliance measure where appropriate for a particular emission guideline. Under section 111(d)(1), States must “establish[,],” “implement[,],” and “enforce[.]” “standards of performance for any existing source.” A State plan that specifies what each existing source must do to satisfy plan requirements is naturally characterized as establishing “standards of performance for [each] existing source,” even if measures like trading and averaging are identified as potential means of compliance. Trading and averaging programs may be appropriate as a policy matter as well because, in some circumstances, they can help to ensure that costs are reasonable by enabling market force to identify the facilities whose emissions can be reduced most cost-effectively. Nothing in the text of section 111 precludes States from considering a source’s acquisition of allowances in implementing and enforcing a standard of performance for that particular source, so long as the State plan achieves the required level of emission reductions.

Further supporting this statutory interpretation, section 111(d) requires a

“procedure similar to that provided by Section 7410.” Consideration of the section 110 framework reinforces the absence of any mandate that States consider only compliance measures that apply at and to an individual source. “States have ‘wide discretion’ in formulating their plans” under section 110. *Alaska Dep’t of Env’tl. Conservation v. EPA*, 540 U.S. 461, 470 (2004) (citation omitted); see *Union Elec. Co. v. EPA*, 427 U.S. 246, 269 (1976) (“Congress plainly left with the States, so long as the national standards were met, the power to deter-mine which sources would be burdened by regulation and to what extent.”); *Train v. Natural Res. Def. Council, Inc.*, 421 U.S. 60, 79 (1975) (“[S]o long as the ultimate effect of a State’s choice of emission limitations is compliance with the national standards for ambient air, the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation.”). Exercising that discretion, States have included measures that do not apply at or to a source in their section 1410 plans. For example, States have employed NO<sub>x</sub> and SO<sub>2</sub> trading programs to comply with section 7410(a)(2)(D)(i)(I), the “Good Neighbor Provision.” Section 110 thus does not distinguish between measures that do or don’t apply at or to a source for compliance, and there is no sound reason to read section 111’s comparably broad language differently.

Such flexibility is consistent with the framework of cooperative federalism that CAA section 111(d) establishes, which vests States with substantial discretion. As the U.S. Supreme Court has explained, CAA section 111(d) “envisions extensive cooperation between federal and state authorities, generally permitting each State to take the first cut at determining how best to achieve EPA emissions standards within its domain.” *American Elec. Power Co. v. Connecticut*, 564 U.S. 410, 428 (2011) (citations omitted).

To be sure, as discussed above, EPA retains an important role in reviewing State plans for adequacy. Under 111(d), each State must “submit to the Administrator a plan” to achieve the degree of emission limitation identified by EPA. That plan must “establish[.]” standards of performance for any existing source for [the] air pollutant” and also “provide[.]” for the implementation and enforcement of such standards of performance.” *Id.* If a State elects not to submit a plan, or submits a plan that EPA does not find “satisfactory,” EPA must promulgate a plan that establishes Federal standards of performance for the State’s existing

sources. 42 U.S.C. 7411(d)(2)(A). Thus, the flexibility that CAA section 111(d) grants to States in adopting measures for their State plans is not unfettered. As the Supreme Court stated in *West Virginia*, “The Agency, not the States, decides the amount of pollution reduction that must ultimately be achieved.” 142 S. Ct. at 2602. State plans then must contain “emissions restrictions that they intend to adopt and enforce in order not to exceed the permissible level of pollution established by EPA.” *Id.* Thus, EPA bears the burden of ensuring that the permissible level of pollution is not exceeded by any State plan. When a compliance flexibility compromises the ability of the State plan to achieve the necessary emission reductions, then the EPA may reasonably preclude reliance on such measures, or otherwise conclude that the State plan is not satisfactory.

Thus, the EPA proposed to disagree with the ACE Rule’s conclusion that State plan compliance measures must always apply at and to an individual source and reduce emissions of that source. As noted in section V.B.6, the U.S. Supreme Court in *West Virginia v. EPA*, 142 S. Ct. 2587 (2022), did not address the scope of the States’ compliance flexibilities in developing State plans. The Court also declined to address whether CAA section 111 limits the type of “system” the EPA may consider to measures that apply substantially at and to an individual source. See *id.* at 2615.

For these reasons, in its notice of proposed rulemaking to amend the CAA section 111(d) implementing regulations, EPA proposes to interpret CAA section 111 as permitting each State to adopt measures that allow its sources to meet their emissions limits in the aggregate, when the EPA determines, in any particular emission guideline, that it is appropriate to do so, given, *inter alia*, the pollution, sources, and standards of performance at issue. Thus, it is the EPA’s proposed position that CAA 111(d) authorizes the EPA to approve State plans under particular emission guidelines that achieve the requisite emission limitation through the aggregate reductions from those sources, including through trading or averaging where appropriate for a particular emission guideline and consistent with the intended environmental outcomes of the guideline. As discussed in section XII.E, the EPA is proposing to allow trading and averaging under the proposed emission guidelines and requesting comment on whether and how such compliance mechanisms could be

implemented to ensure equivalency with the emission reductions that would be achieved if each affected source was achieving its applicable standard of performance.

The ACE Rule's flawed legal interpretation that CAA section 111(d) universally precludes States from emissions trading is incorrect and adds to EPA's rationale for proposing to repeal the rule.

## X. Proposed Regulatory Approach for Existing Fossil Fuel-Fired Steam Generating Units

### A. Overview

In this section of the preamble, the EPA explains the basis for its proposed emission guidelines for GHG emissions from existing fossil fuel-fired steam generating units for States' use in plan development. This includes proposing different subcategories of designated facilities, the BSER for each subcategory, and the degree of emission limitation achievable by application of each proposed BSER. The EPA is proposing subcategories for steam generating units based on the type and amount of fossil fuel (*i.e.*, coal, oil, and natural gas) fired in the unit.

For existing coal-fired steam generating units that plan to operate in the long-term, the EPA is proposing CCS with 90 percent capture as BSER, based on a review of emission control technologies detailed further in this section of the preamble and accompanying TSDs, available in the docket. The EPA is soliciting comment on a range of maximum capture rates (90 to 95 percent or greater) and, to potentially account for the amount of time the capture equipment operates relative to operation of the steam generating unit, a slightly lower achievable degree of emission limitation (75 to 90 percent reduction in average annual emission rate, defined in terms of pounds of CO<sub>2</sub> per unit of generation).

During the EPA's engagement with stakeholders to inform this proposed rule, industry stakeholders noted that many coal-fired sources have plans to permanently cease operation in the coming years, and that GHG control technologies might not be cost reasonable for those units operating on shorter timeframes. These stakeholders recommended that the emission guidelines account for industry plans for permanently ceasing operation of coal-fired steam generating units by establishing a "subcategory pathway" with less stringent requirements.

Consistent with this stakeholder input, the EPA proposes to provide

subcategories for coal-fired steam generating units planning to permanently cease operations in the 2030s. The EPA recognizes that the cost reasonableness of GHG control technology options differ depending on a coal-fired steam generating unit's expected operating time horizon. Accordingly, the EPA is proposing to divide the subcategory for coal-fired units into additional subcategories based on operating horizon (*i.e.*, dates for electing to permanently cease operation) and, for one of those subcategories, load level (*i.e.*, annual capacity factor), with a separate BSER and degree of emission limitation corresponding to each subcategory. For long-term coal-fired units, the EPA is proposing that CCS satisfies the BSER criteria, as noted above. For medium-term units, the EPA is proposing natural gas co-firing at 40 percent of annual heat input as BSER. The EPA is soliciting comment on the percent of natural gas co-firing from 30 to 50 percent and the degree of emission limitation defined by a reduction in emission rate from 12 to 20 percent. For imminent-term and near-term coal-fired steam generating units, the EPA is proposing a BSER of routine methods of operation and maintenance. Because of differences in performance between units, the EPA is proposing to determine the associated degree of emission limitation as no increase in emission rate. For imminent-term and near-term coal-fired steam generating units, the EPA is also soliciting comment on a potential BSER based on low levels of natural gas co-firing.

For natural gas- and oil-fired steam generating units, the EPA is proposing a BSER of routine methods of operation and maintenance and a degree of emission limitation of no increase in emission rate. Further, the EPA is proposing to divide subcategories for oil- and natural gas-fired units based on capacity and, in some cases, geographic location. Because natural gas- and oil-fired steam generating units with similar annual capacity factors perform similarly to one another, the EPA is proposing presumptive standards of performance of 1,300 lb CO<sub>2</sub>/MWh-gross for base load units (*i.e.*, those with annual capacity factors greater than 45 percent) and 1,500 lb CO<sub>2</sub>/MWh-gross for intermediate load units (*i.e.*, those with annual capacity factors between 8 and 45 percent). Because natural gas- and oil-fired steam generating units with low load have large variations in emission rate, the EPA is not proposing a BSER or degree of emission limitation for those units in this action. However,

the EPA is soliciting comment on a potential BSER of "uniform fuels" and degree of emission limitation defined on a heat input basis by 120 to 130 lb CO<sub>2</sub>/MMBtu for low load natural gas-fired steam generating units and 150 to 170 lb CO<sub>2</sub>/MMBtu for low load oil-fired steam generating units. Also, because non-continental oil-fired steam generating units operate at intermediate and base load, and because there are relatively few of those units for which to define a limit on a fleet-wide basis, the EPA is proposing a degree of emission limitation for those units of no increase in emission rate and presumptive standards based on unit-specific emission rates, as detailed in section XII of this preamble. The EPA is soliciting comment on ranges of annual capacity factors to define the thresholds between the load levels and ranges in the degrees of emission limitation, as specified in section X.E of this preamble.

It should be noted that the EPA is proposing a compliance date of January 1, 2030, as discussed in section XII of this preamble on State plan development.

The remainder of this section is organized into the following subsections. Subsection B describes the proposed applicability requirements for existing steam generating units. Subsection C provides the explanation for the proposed subcategories. Subsection D contains, for coal-fired steam generating units, a summary of the systems considered for the BSER, detailed discussion of the systems and other options considered, and explanation and justification for the determination of BSER and degree of emission limitation. Subsection E contains, for natural gas- and oil-fired steam generating units, a summary of the systems considered for the BSER, detailed discussion of the systems and other options considered, and explanation and justification for the determination of BSER and degree of emission limitation.

### B. Applicability Requirements for Existing Fossil Fuel-Fired Steam Generating Units

For the emission guidelines, the EPA is proposing that a designated facility<sup>524</sup> is any fossil fuel-fired electric utility steam generating unit (*i.e.*, utility boiler or IGCC unit) that: (1) Was in operation or had commenced construction on or

<sup>524</sup> The term "designated facility" means "any existing facility . . . which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility." See 40 CFR 60.21a(b).



before January 8, 2014;<sup>525</sup> (2) serves a generator capable of selling greater than 25 MW to a utility power distribution system; and (3) has a base load rating greater than 260 GJ/h (250 MMBtu/h) heat input of fossil fuel (either alone or in combination with any other fuel). Consistent with the implementing regulations, the term “designated facility” is used throughout this preamble to refer to the sources affected by these emission guidelines.<sup>526</sup> For this action, consistent with prior CAA section 111 rulemakings concerning EGUs, the term “designated facility” refers to a single EGU that is affected by these emission guidelines. The rationale for this proposal concerning applicability is the same as that for 40 CFR part 60, subpart TTTT (80 FR 64543–44; October 23, 2015). The EPA incorporates that discussion by reference here.

Section 111(a)(6) of the CAA defines an “existing source” as “any stationary source other than a new source.” Therefore, the emission guidelines would not apply to any EGUs that are new after January 8, 2014, or reconstructed after June 18, 2014, the applicability dates of 40 CFR part 60, subpart TTTT. Moreover, because the EPA is now proposing revised standards of performance for coal-fired steam generating units that undertake a modification, a modified source would be considered “new,” and therefore not subject to these emission guidelines, if the modification occurs after the date this proposal is published in the **Federal Register**. Any source that has modified prior to that date would be considered an existing source that is subject to these emission guidelines.

In addition, the EPA is proposing to include in the applicability requirements of the emission guidelines the same exemptions as discussed for 40 CFR part 60, subpart TTTT in section VII.E.1 of this preamble. Designated EGUs that may be excluded from a State plan are: (1) Units that are subject to 40 CFR part 60, subpart TTTT, as a result of commencing a qualifying modification or reconstruction; (2) steam generating units subject to a federally enforceable permit limiting net-electric sales to one-third or less of their potential electric output or 219,000

MWh or less on an annual basis and annual net-electric sales have never exceeded one-third or less of their potential electric output or 219,000 MWh; (3) non-fossil fuel units (*i.e.*, units that are capable of deriving at least 50 percent of heat input from non-fossil fuel at the base load rating) that are subject to a federally enforceable permit limiting fossil fuel use to 10 percent or less of the annual capacity factor; (4) CHP units that are subject to a federally enforceable permit limiting annual net-electric sales to no more than either 219,000 MWh or the product of the design efficiency and the potential electric output, whichever is greater; (5) units that serve a generator along with other steam generating unit(s), where the effective generation capacity (determined based on a prorated output of the base load rating of each steam generating unit) is 25 MW or less; (6) municipal waste combustor units subject to 40 CFR part 60, subpart Eb; (7) commercial or industrial solid waste incineration units that are subject to 40 CFR part 60, subpart CCCC; or (8) EGUs that derive greater than 50 percent of the heat input from an industrial process that does not produce any electrical or mechanical output or useful thermal output that is used outside the affected EGU. The EPA solicits comment on the proposed definition of “designated facility” and applicability exemptions for fossil fuel-fired steam generating units.

The exemptions listed above at (4), (5), (6), and (7) are among the current exemptions at 40 CFR 60.5509(b), as discussed in section VII.E.1 of this preamble. The exemptions listed above at (2), (3), and (8) are exemptions the EPA is proposing to revise for 40 CFR part 60, subpart TTTT, and the rationale for proposing the exemptions is in section VII.E.1 of this preamble. For consistency with the applicability requirements in 40 CFR part 60, subpart TTTT, we are proposing these same exemptions for the applicability of the emission guidelines.

The EPA is, in general, proposing the same emission guidelines for fossil fuel-fired steam generating units in non-continental areas (*i.e.*, Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, and the Northern Mariana Islands) and non-contiguous areas (non-continental areas and Alaska) as the EPA is proposing for comparable units in the contiguous 48 States. However, units in non-continental and non-contiguous areas operate on small, isolated electric grids, may operate differently from units in the contiguous 48 States, and may have limited access to certain components of

the proposed BSER due to their uniquely isolated geography or infrastructure. Therefore, the EPA is soliciting comment on the proposed BSER and degrees of emission limitation for units in non-continental and non-contiguous areas, and the EPA is soliciting comment on whether those units in non-continental and non-contiguous areas should be subject to different, if any, requirements.

The EPA notes that existing IGCC units are included in the proposed applicability requirements and that, in section X.C.1 of this preamble, the EPA is proposing to include those units in the subcategory of coal-fired steam generating units. IGCC units gasify coal or solid fossil fuel (*e.g.*, pet coke) to produce syngas (a mixture of carbon monoxide and hydrogen), and either burn the syngas directly in a combined cycle unit or use a catalyst for water-gas shift (WGS) to produce a pre-combustion gas stream with a higher concentration of CO<sub>2</sub> and hydrogen, which can be burned in a hydrogen turbine combined cycle unit. As described in section X.D of this preamble, the proposed BSER for coal-fired steam generating units includes co-firing natural gas and CCS, depending on their operating horizon. The few IGCC units that now operate in the U.S. either burn natural gas exclusively—and as such operate as natural gas combined cycle units—or in amounts near to the 40 percent level of the natural gas co-firing BSER. Additionally, IGCC units are suitable for pre-combustion CO<sub>2</sub> capture. Because the CO<sub>2</sub> concentration in the pre-combustion gas, after WGS, is high relative to coal-combustion flue gas, pre-combustion CO<sub>2</sub> capture for IGCC units can be performed using either an amine-based capture process or a physical absorption capture process. For these reasons, the EPA is not proposing to distinguish IGCC units from other coal-fired steam generating EGUs, so that the BSER of co-firing for medium-term coal-fired units and CCS for long-term coal-fired units apply to IGCC units.<sup>527</sup>

### C. Subcategorization of Fossil Fuel-Fired Steam Generating Units

Steam generating units can have a broad range of technical and operational differences. Based on these differences, they may be subcategorized, and different BSER and degrees of emission limitation may be applicable to different subcategories. Subcategorizing allows for determining the most appropriate

<sup>525</sup> Under CAA section 111, the determination of whether a source is a new source or an existing source (and thus potentially a designated facility) is based on the date that the EPA proposes to establish standards of performance for new sources.

<sup>526</sup> The EPA recognizes, however, that the word “facility” is often understood colloquially to refer to a single power plant, which may have one or more EGUs co-located within the plant’s boundaries.

<sup>527</sup> For additional details on pre-combustion CO<sub>2</sub> capture, please see the *GHG Mitigation Measures for Steam Generating Units TSD*.

control requirements for a given class of steam generating unit. Therefore, the EPA is proposing subcategories for steam generating units based on fossil fuel type, operating horizon and load level, and is proposing different BSER and degrees of emission limitation for those different subcategories. The EPA notes that in section XII.B of this preamble comment is solicited on the compliance deadline (*i.e.*, January 1, 2030), for imminent-term and near-term coal-fired steam generating units, and different subcategories of natural gas- and oil-fired steam generating units.

### 1. Subcategorization by Fossil Fuel Type

In this action, the EPA is proposing definitions for subcategories of existing fossil fuel-fired steam generating units based on the type and amount of fossil fuel used in the unit. The subcategory definitions proposed for these emission guidelines are based on the definitions in 40 CFR part 63, subpart UUUUU, and using the fossil fuel definitions in 40 CFR part 60, subpart TTTT.

A coal-fired steam generating unit is an electric utility steam generating unit or IGCC unit that meets the definition of “fossil fuel-fired” and that burns coal for more than 10.0 percent of the average annual heat input during the 3 calendar years prior to the proposed compliance deadline (*i.e.*, January 1, 2030), or for more than 15.0 percent of the annual heat input during any one of those calendar years, or that retains the capability to fire coal after December 31, 2029.

An oil-fired steam generating unit is an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired steam generating unit and that burns oil for more than 10.0 percent of the average annual heat input during the 3 calendar years prior to the proposed compliance deadline (*i.e.*, January 1, 2030), or for more than 15.0 percent of the annual heat input during any one of those calendar years, and that no longer retains the capability to fire coal after December 31, 2029.

A natural gas-fired steam generating unit is an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired or oil-fired steam generating unit and that burns natural gas for more than 10.0 percent of the average annual heat input during the 3 calendar years prior to the proposed compliance deadline (*i.e.*, January 1, 2030), or for more than 15.0 percent of the annual heat input during any one of those calendar years, and that no longer retains the capability to fire coal after December 31, 2029.

### 2. Subcategorization of Natural Gas- and Oil-Fired Steam Generating Units by Load Level

The EPA is also proposing additional subcategories for oil-fired and natural gas-fired steam generating units, based on load levels: “low” load, defined by annual capacity factors less than 8 percent; “intermediate” load, defined by annual capacity factors greater than or equal to 8 percent and less than 45 percent; and “base” load, defined by annual capacity factors greater than or equal to 45 percent. In addition, the EPA is soliciting comment on a range from 5 to 20 percent to define the threshold value between low and intermediate load and a range from 40 to 50 percent to define the threshold value between intermediate and base load. Because non-continental oil-fired units may operate differently, the EPA is proposing a separate subcategory for intermediate and base load non-continental oil-fired units. The rationale for the proposed load thresholds and other subcategories is detailed in the description of the BSER for oil- and natural gas-fired steam generating units in section X.E of this preamble.

### 3. Subcategorization of Coal-Fired Steam Generating Units by Operating Horizon and Load Level

The EPA is proposing CCS with 90 percent capture as BSER for existing coal-fired steam generating units that will operate in the long-term (*i.e.*, those that intend to operate on or after January 1, 2040), as detailed in section X.D of this preamble. CCS is adequately demonstrated at coal-fired steam generating units, is cost reasonable, achieves meaningful reductions in GHG emissions, and meets the other criteria for the BSER. The EPA is soliciting comment on a range of maximum capture rates (90 to 95 percent or greater) and, to potentially account for the amount of time the capture equipment operates relative to operation of the steam generating unit, a slightly lower achievable degree of emission limitation (75 to 90 percent reduction in average annual emission rate, defined in terms of pounds of CO<sub>2</sub> per unit of generation).

During the EPA’s engagement with stakeholders to inform this proposed rule, industry commenters to the pre-proposal docket noted that many sources have plans to permanently cease operation in the coming years, and that GHG control technologies might not be cost reasonable for those units operating on shorter timeframes. Further, industry stakeholders recommended that the emission guidelines account for

industry plans for permanently ceasing operation of coal-fired steam generating units by establishing a “subcategory pathway.” Specifically, industry stakeholders requested that, “[The] EPA should provide a subcategory pathway for units to decommission/repower into the early 2030s, which would include enforceable shutdown obligations, as part of an approach to existing unit guidelines.” The stakeholders cited, as a precedent, the EPA’s creation of—

targeted subcategories for unit closures in other contexts, most notably the cessation of coal subcategory in the 2020 Clean Water Act (CWA) steam electric effluent guidelines . . . that allows for decommissioning/repowering by December 31, 2028. This subcategory allows those facilities that have already filed closure commitments to continue on a path to decommission/repower these assets without installing additional control equipment that could extend the lives of these units to support cost recovery.

EPA-HQ-OAR-2022-0723-0024. In subsequent comment, industry stakeholders reiterated that, “[The] EPA should proactively include a subcategory that allows for units to opt-in to a federally enforceable retirement commitment as part of compliance with regulations for existing sources under CAA section 111(d).” EPA-HQ-OAR-2022-0723-0038. Thus, industry stakeholders recommended that EPA allow existing sources that are on a path to near term retirement to continue on that path without having to install additional control equipment.

The proposed emission guidelines are aligned with this recommendation. Many fossil fuel-fired steam generating units have plans to cease operations, are part of utilities with commitments to net zero power by certain dates, or are in States or localities with commitments to net zero power by certain dates. Over one-third of existing coal-fired steam generating capacity has planned to cease operation by 2032, and approximately half of the capacity has planned to cease operations by 2040.<sup>528</sup> These plans are part of the industry trend, described in section IV.F and IV.I, in which owners and operators of the nation’s coal fleet, much of it aging, are replacing their units with natural gas combustion turbines and, increasingly, renewable energy.

As industry stakeholders have pointed out, in previous rulemakings, the EPA has allowed coal-fired EGUs with plans to voluntarily cease operations in the near future to continue with their plans without having to install pollution control equipment. In addition to the 2020 CWA steam electric

<sup>528</sup> See the *Power Sector Trends* TSD.

effluent guidelines these stakeholders cite, the EPA has also approved regional haze State implementation plans in which coal-fired EGUs that voluntarily committed to cease operations by a certain date were not subject to more stringent controls.<sup>529</sup>

The EPA proposes to take the approach requested by industry stakeholders in this rulemaking. The EPA recognizes that the cost reasonableness of GHG control technology options differ depending on a coal-fired steam generating unit's expected operating time horizon. Certain technologies that are cost reasonable for EGUs that intend to operate for the long term are less cost reasonable for EGUs with shorter operating horizons because of shorter amortization periods and, for CCS, less time to utilize the IRC section 45Q tax credit.

Accordingly, the EPA is proposing to divide the subcategory for coal-fired units into additional subcategories based on operating horizon (*i.e.*, dates for electing to permanently cease operation) and, for one of those subcategories, load level (*i.e.*, annual capacity factor), with a separate BSER and degree of emission limitation corresponding to each subcategory. Coal-fired steam generating units would be able to opt into these subcategories if they elect to commit to permanently ceasing operations by a certain date (and, in the case of one subcategory, elect to commit to an annual capacity factor limitation), and also elect to make such commitments federally enforceable and continuing by including them in the State plan.

Specifically, the EPA is proposing four subcategories for steam generating units by operating horizon (*i.e.*, enforceable commitments to permanently cease operations) and, in one case, by load level (*i.e.*, annual capacity factor) as well. "Imminent-term" steam generating units are those that (1) Have elected to commit to permanently cease operations prior to January 1, 2032, and (2) elect to make that commitment federally enforceable and continuing by having it included in the State plan.<sup>530</sup> "Near-term" steam

generating units are those that (1) Have elected to commit to permanently cease operations by December 31, 2034, as well as to adopt an annual capacity factor limit of 20 percent, and (2) elect to make both conditions federally enforceable and continuing by having them included in the State plan. "Medium-term" steam generating units are those that (1) Operate after December 31, 2031, (2) have elected to commit to permanently cease operations prior to January 1, 2040, (3) elect to make that commitment federally enforceable and continuing by having it included in the State plan, and (4) do not meet the definition of near-term units. "Long-term" steam generating units are those that have not elected to commit to permanently cease operations prior to January 1, 2040. Details regarding the implementation of subcategories in State plans are available in section XII.D of this preamble.

The EPA is proposing the imminent-term subcategory based on a 2-year operating horizon from the proposed compliance deadline (January 1, 2030, see section XII.B for additional details). This proposed subcategory is designed to accommodate units with operating horizons short enough that no additional CO<sub>2</sub> control measures would be cost reasonable. The EPA is proposing the near-term subcategory to provide an alternative option for units that intend to operate for a slightly longer horizon but as peaking units, *i.e.*, that intend to run at lower load levels. The load level of 20 percent for the near-term subcategory is based on spreading an average 2 years of generation (*i.e.*, 50 percent in each year, a typical load level) that would occur under the imminent-term subcategory over the 5-year operating horizon of the near-term subcategory. The EPA also solicits comment on whether the existence of the near-term subcategory makes the imminent-term subcategory unnecessary. More specifically, the EPA

federally enforceable in state implementation plan); Guidance on Regional Haze State Implementation Plans for the Second Implementation Period at 34, EPA-457/B-19-003, August 2019 (to the extent a state relies on an enforceable shutdown date for a reasonable progress determination, that measure would need to be included in the SIP and/or be federally enforceable); 84 FR 32520, 32558 (July 8, 2019) (to the extent a state relies on a source's retirement date for a standard of performance under 111(d), that date must be included in the state plan and will thus be made federally enforceable); 87 FR 79176, 79200-01 (December 23, 2022) (proposed revisions to CAA section 111(d) implementing regulations would require States to include operating conditions, including retirements, in their state plans whenever the state seeks to rely on that operating condition as the basis for a less stringent standard).

requests comment on the potential to remove the imminent-term subcategory, which as proposed includes coal-fired steam generating units that have elected to commit to permanently cease operations prior to January 1, 2032. The EPA is considering an option in which these units would instead be included in the near-term subcategory (units that have elected to commit to permanently cease operations before January 1, 2035 and commit to adopt an annual capacity factor limit of 20 percent) or the medium-term subcategory (units that have elected to commit to permanently cease operations before January 1, 2040 and that are not near-term units). The EPA further requests comment on an alternative, modified approach for units in the imminent-term subcategory that could take into account how units intending to cease operations operate in practice in the period leading up to such cessation. For instance, in their last few years of operation, those units may operate less than they have historically operated, lowering their total CO<sub>2</sub> mass emissions, but at the same time raising their emission rate (because lower utilization may result in lower efficiency). The EPA solicits comment on whether it would be appropriate for the imminent-term units' standards of performance to reflect the reduced utilization and higher emission rates through the use of an annual mass emission limitation. Such a limitation would account for lower utilization, but also allow greater flexibility with regard to hourly emission rate.

The EPA is proposing the 10-year operating horizon (*i.e.*, January 1, 2040) as the threshold between medium-term and long-term subcategories because long-term units will have a longer amortization period and may be better able to fully utilize the IRC section 45Q tax credit. For the analysis of BSER costs of CCS for long-term units, the EPA assumes a 12-year amortization period as this is commensurate with the time period the IRC section 45Q tax credit would be available. Based on the cost analysis performed under that assumption, the EPA is proposing the costs of CCS for long-term coal-fired units are reasonable, as detailed in section X.D.1.a.ii of this preamble. To support the 10-year operating horizon threshold, the costs for a 10-year amortization period are shown here. For a 10-year amortization period, assuming a 50 percent capacity factor, costs of CCS for a representative unit are \$31/ton of CO<sub>2</sub> reduced or \$27/MWh of generation. Assuming a 70 percent capacity factor, costs of CCS for a representative unit are \$6/ton of CO<sub>2</sub>

<sup>529</sup> See, e.g., 76 FR 12651, 12660-63 (March 8, 2011) (best available retrofit technology requirements for Oregon source based on enforceable retirement that were to be made federally enforceable in state implementation plan).

<sup>530</sup> Operating conditions that are within the control of a source must, under a range of CAA programs, be made federally enforceable in order for a source to rely on them as the basis for a less stringent standard. See, e.g., 76 FR 12651, 12660-63 (March 8, 2011) (best available retrofit technology requirements for Oregon source based on enforceable retirement that were to be made

reduced or \$5/MWh of generation. For the population of units planning to operate on or after January 1, 2030, the fleet average costs assuming a 50 percent capacity factor are \$24/ton of CO<sub>2</sub> reduced or \$22/MWh. For the population of units planning to operate on or after January 1, 2030, the fleet average costs assuming a 70 percent capacity factor are –\$3/ton of CO<sub>2</sub> reduced or –\$2/MWh. Costs vary depending on capacity factor assumptions, but are in either case generally comparable to the costs detailed in section VII.F.3.b.iii(B)(5) of this preamble of other controls on EGUs (\$10.60 to \$29.00/MWh) and less than the costs in the 2016 NSPS regulating GHGs for the Crude Oil and Natural Gas source category of \$98/ton of CO<sub>2e</sub> reduced (80 FR 56627; September 18, 2015). The EPA is soliciting comment on the dates and load levels used to define the coal-fired subcategories and is seeking data and analysis on the impact of those alternative dates and load levels on the compliance requirements. As noted in section X.D.1.a.ii(C) of this preamble, the costs for CCS may be reasonable for units with amortization periods as short as 8 years. Therefore, the EPA is specifically soliciting comment on an operating horizon of between 8 and 10 years (*i.e.*, January 1, 2038, to January 1, 2040) to define the date for the threshold between medium-term and long-term coal-fired steam generating units.

#### 4. Legal Basis for Subcategorization

As noted in section V of this preamble, the EPA has broad authority under CAA section 111(d) to identify subcategories. As also noted in section V, the EPA's authority to "distinguish among classes, types, and sizes within categories," as provided under CAA section 111(b)(2) and as we interpret CAA section 111(d) to provide as well, generally allows the Agency to place types of sources into subcategories when they have characteristics that are relevant to the controls that the EPA may determine to be the BSER for those sources. One element of the BSER is cost reasonableness. See CAA section 111(d)(1) (requiring the EPA, in setting the BSER, to "tak[e] into account the cost of achieving such reduction"). As noted in section V, the EPA's long-standing regulations under CAA section 111(d) explicitly recognize that subcategorization may be appropriate for sources based on the "costs of control."<sup>531</sup> Subcategorization on the basis of operating horizon is consistent with a central characteristic of the coal-

fired power industry that is relevant for determining the cost reasonableness of control requirements: A large percentage of the industry has announced, or is expected to announce, dates for ceasing operation, and the fact that many coal-fired steam generating units intend to cease operation affects what controls are "best" for different subcategories. Whether the costs of control are reasonable depends in part on the period of time over which the affected sources can amortize those costs. Sources that have shorter operating horizons will have less time to amortize capital costs and the controls will thereby be less cost-effective and therefore may not qualify as the BSER.<sup>532</sup>

In addition, subcategorization by length of period of continued operation is similar to two other bases for subcategorization on which the EPA has relied in prior rules, each of which implicates the cost reasonableness of controls: The first is load level, noted in section X.C of this preamble. For example, in the 2015 NSPS, the EPA divided new natural gas-fired combustion turbines into the subcategories of base load and non-base load. 80 FR 64510, 64602 (table 15) (October 23, 2015). The EPA did so because the control technologies that were "best"—including consideration of feasibility and cost-reasonableness—depended on how much the unit operated. The load level, which relates to the amount of product produced on a yearly or other basis, bears similarity to a limit on a period of continued operation, which concerns the amount of time remaining to produce the product. In both cases, certain technologies may not be cost reasonable because of the capacity to produce product—*i.e.*, because the costs are spread over less product produced.

The second is fuel type, as also noted in section X.C of this preamble. The 2015 NSPS provides an example of this type of subcategorization as well. There, the EPA divided new combustion turbines into subcategories on the basis of type of fuel combusted. *Id.* Subcategorization on the basis of the type of fuel combusted may be appropriate when different controls have different costs, depending on the type of fuel, so that the cost-reasonableness of the control depends on the type of fuel. In that way, it is similar to subcategorization by operating horizon because in both cases, the subcategory is based upon the

cost reasonableness of controls. Subcategorization by fuel type presents an additional analogy to the present case of subcategorization on the basis of the length of time when the source will continue to operate because this timeframe is tantamount to the length of time when the source will continue to combust the fuel. Subcategorization on this basis may be appropriate when different controls for a particular fuel have different costs, depending on the length of time when the fuel will continue to be combusted, so that the cost-reasonableness of controls depends on that timeframe. Some prior EPA rules for coal-fired sources have made explicit the link between length of time for continued operation and type of fuel combusted by codifying federally enforceable retirement dates as the dates by which the source must "cease burning coal."<sup>533</sup>

It should be noted that subcategorization on the basis of operating horizon does not preclude a State from considering RULOF in applying a standard of performance to a particular source. EPA's authority to set BSER for a source category (including subcategories) and a State's authority to invoke RULOF for individual sources within a category or subcategory are distinct. EPA's statutory obligation is to determine a generally applicable BSER for a source category, and where that source category encompasses different classes, types, or sizes of sources, to set generally applicable BSERs for subcategories accounting for those differences. By contrast, States' authority to invoke RULOF is premised on the State's ability to take into account the characteristics of a particular source that may differ from the assumptions EPA made in determining BSER generally. As noted above, the EPA is proposing these subcategories in response to requests by power sector representatives that this rule accommodate the fact that there is a class of sources that plans to voluntarily cease operations in the near term. Although the EPA has designed the subcategories to accommodate those requests, a particular source may still present source-specific considerations—whether related to its remaining useful life or other factors—that the State may consider relevant for the application of that particular source's standard of performance, and that the State should

<sup>533</sup> See 79 FR 5031, 5192 (January 30, 2014) (explaining that "[t]he construction permit issued by Wyoming requires Naughton Unit 3 to *cease burning coal* by December 31, 2017 and to be retrofitted to natural gas as its fuel source by June 30, 2018" (emphasis added)).

<sup>532</sup> Steam Electric Reconsideration Rule, 85 FR 64650, 64679 (October 13, 2020) (distinguishes between EGUs retiring before 2028 and EGUs remaining in operation after that time).

<sup>531</sup> 40 CFR 60.22(b)(5), 60.22a(b)(5).

address as described in section XII.D.2 of this preamble.

#### *D. Determination of BSER for Coal-Fired Steam Generating Units*

The EPA evaluated two primary control technologies as potentially representing the BSER for existing coal-fired steam generating units: CCS and natural gas co-firing. This section of the preamble discusses each of these alternatives, based on the criteria described in section V.C of this preamble.

The EPA is proposing CCS with 90 percent capture as BSER for long-term coal-fired steam generating units, that is, ones that are expected to continue to operate past 2039, because CCS can achieve an appropriate amount of emission reductions and satisfies the other BSER criteria. Because CCS is less cost reasonable for EGUs that do not plan to operate in the long term, the EPA is proposing other measures as BSER for the other subcategories of existing coal-fired steam generating units.

Specifically, for medium-term units, that is, ones that have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2040, and are not near-term units, the EPA is proposing a BSER of 40 percent natural gas co-firing on a heat input basis. However, the EPA is taking comment on the operating horizon (*i.e.*, between 8 and 10 years, instead of the proposed 10-year operating horizon) that defines the threshold date between medium-term and long-term coal-fired steam generating units, and it is possible that the costs of CCS may be considered reasonable for some portion of the units that may be covered by the medium-term subcategory as proposed.

For imminent-term and near-term units, that is, ones that have elected to commit to permanently cease operations before January 1, 2032, and between December 31, 2031, and January 1, 2035, coupled with an annual capacity factor limit, respectively, the EPA is proposing a BSER of routine methods of operation and maintenance that maintain current emission rates. The EPA is also soliciting comment on a potential BSER based on low levels of natural gas co-firing for imminent- and near-term units.

#### 1. Long-Term Coal-Fired Steam Generating Units

In this section of the preamble, the EPA evaluates CCS and natural gas co-firing as potential BSER for long-term coal-fired steam generating units.

The EPA is proposing CCS with 90 percent capture of CO<sub>2</sub> at the stack as

BSER for long-term coal-fired steam generating units. The Agency is taking comment on the range of the amount of capture of CO<sub>2</sub> from 90 to 95 percent or greater. CCS achieves substantial reductions in emissions and can capture and permanently sequester more than 90 percent of CO<sub>2</sub> emitted by coal-fired steam generating units. The technology is adequately demonstrated, as indicated by the facts that it has been operated at scale and is widely applicable to sources, and there are vast sequestration opportunities across the continental U.S. Additionally, the costs for CCS are reasonable, in light of recent technology cost declines and policies including the tax credit under IRC section 45Q. Moreover, the non-air quality health and environmental impacts and energy requirements of CCS are not unreasonably adverse. These factors provide the basis for proposing CCS as BSER for these sources. In addition, determining CCS as the BSER promotes this useful GHG emission control technology.

The EPA also evaluated natural gas co-firing at 40 percent of heat input as a potential BSER for long-term coal-fired steam generating units. While the unit level emission rate reductions of 16 percent achieved by 40 percent natural gas co-firing are reasonable, those reductions are substantially less than CCS with 90 percent capture of CO<sub>2</sub>. Therefore, because CCS achieves more reductions at the unit level and is cost reasonable, the EPA is not proposing natural gas co-firing as the BSER for these units.

#### a. CCS

In this section of the preamble, the EPA evaluates the use of CCS as the BSER for existing long-term coal-fired steam generating units. This section incorporates by reference the parts of section VII.F.3.b.iii of this preamble that discuss the aspects of CCS that are common to new combustion turbines and existing steam generating units. This section also discusses additional aspects of CCS that are relevant for existing steam generating units and, in particular, long-term units.

#### i. Adequately Demonstrated

The EPA is proposing that CCS is technically feasible and has been adequately demonstrated, based on the utilization of the technology at existing coal-fired steam generating units and industrial sources in addition to combustion turbines. While the EPA would propose that CCS is adequately demonstrated on those bases alone, this determination is further corroborated by EPAAct05-assisted projects.

The fundamental CCS technology has been in existence for decades, and the industry has extensive experience with and knowledge about it. Indeed, even without the requirements proposed here, the EPA projects that 9 GW of coal-fired steam generating units would apply CCS by 2030. Thus, the EPA will explain how existing and planned fossil fuel-fired electric power plants and other industrial projects that have installed or expect to install some or all of the components of CCS technology support the EPA's proposed determination that CCS is adequately demonstrated for existing coal-fired power plants, and the EPA will explain how EPAAct05-assisted projects support that proposed determination, consistent with the legal interpretation of the EPAAct05 in section VII.F.3.b.iii(A) of this preamble.

#### (A) CO<sub>2</sub> Capture Technology

The technology of CO<sub>2</sub> capture, in general, is detailed in accompanying TSDs (available in the docket) and in section VII.F.3.b.iii of this preamble. As noted there, solvent-based (*i.e.*, amine-based) post-combustion CO<sub>2</sub> capture is the technology that is most applicable at existing coal-fired steam generating units. Technology considerations specific to existing coal-fired steam generating units, including energy demands, non-GHG emissions, and water use and siting, are discussed in section X.D.1.a.iii of this preamble. As detailed in section VII.F.3.b.iii(A) of this preamble, the CO<sub>2</sub> capture component of CCS has been demonstrated at existing coal-fired steam generating units, industrial processes, and existing combustion turbines. In particular, SaskPower's Boundary Dam Unit 3 has demonstrated capture rates of 90 percent of the CO<sub>2</sub> in flue gas using solvent-based post-combustion capture retrofitted to existing coal-fired steam generating units. While the EPA would propose that the CO<sub>2</sub> capture component of CCS is adequately demonstrated on the basis of Boundary Dam Unit 3 alone, CO<sub>2</sub> capture has been further demonstrated at other coal-fired steam generating units (CO<sub>2</sub> capture from slipstreams of AES's Warrior Run and Shady Point) and industrial processes (*e.g.*, Quest CO<sub>2</sub> capture project), detailed descriptions of which are provided in section VII.F.3.b.iii(A)(2) of this preamble. The core technology of CO<sub>2</sub> capture applied to combustion turbines is similar to that of coal-fired steam generating units (*i.e.*, both may use amine solvent-based methods); therefore the demonstration of CO<sub>2</sub> capture at combustion turbines (*e.g.*, the Bellingham, Massachusetts,

combined cycle unit), as detailed in section VII.F.3.b.iii(A)(3) of this preamble, provide additional support for the adequate demonstration of CO<sub>2</sub> capture for coal-fired steam generating units. Finally, EPA05-assisted CO<sub>2</sub> capture projects (e.g., Petra Nova) further corroborate the adequate demonstration of CO<sub>2</sub> capture.

#### (B) CO<sub>2</sub> Transport

As discussed in section VII.F.3.b.iii of this preamble, CO<sub>2</sub> pipelines are available and their network is expanding in the U.S., and the safety of existing and new supercritical CO<sub>2</sub> pipelines is comprehensively regulated by PHMSA.<sup>534</sup> Other modes of CO<sub>2</sub> transportation also exist.

Based on data from DOE/NETL studies of storage resources, 77 percent of existing coal-fired steam generating units that have planned operation during or after 2030 are within 80 km (50 miles) of potential saline sequestration sites, and another 5 percent are within 100 km (62 miles) of potential sequestration sites.<sup>535</sup> Additionally, of the coal-fired steam generating units with planned operation during or after 2030, 90 percent are located within 100 km of one or more types of sequestration formations, including deep saline, unmineable coal seams, and oil and gas reservoirs. This distance is consistent with the distances referenced in studies that form the basis for transport cost estimates in this proposal.<sup>536 537</sup> As noted in section VII.F.3.b.iii(A)(5) of this preamble, areas without reasonable access to pipelines for geologic sequestration can transport CO<sub>2</sub> to sequestration sites via other transportation modes such as ship, road tanker, or rail tank cars.

#### (C) Geologic Sequestration of CO<sub>2</sub>

Geologic sequestration (*i.e.*, the long-term containment of a CO<sub>2</sub> stream in

<sup>534</sup> PHMSA additionally initiated a rulemaking in 2022 to develop and implement new measures to strengthen its safety oversight of CO<sub>2</sub> pipelines following investigation into a CO<sub>2</sub> pipeline failure in Satartia, Mississippi in 2020. For more information, see: <https://www.phmsa.dot.gov/news/phmsa-announces-new-safety-measures-protect-americans-carbon-dioxide-pipeline-failures>.

<sup>535</sup> Sequestration potential as it relates to distance from existing resources is a key part of the EPA's regular power sector modeling development, using data from DOE/NETL studies. For details please see Chapter 6 of the IPM documentation available at: <https://www.epa.gov/system/files/documents/2021-09/chapter-6-co2-capture-storage-and-transport.pdf>.

<sup>536</sup> The pipeline diameter was sized for this to be achieved without the need for recompression stages along the pipeline length.

<sup>537</sup> Note that the determination that the BSER has been adequately demonstrated does not require that every source in the long-term coal-fired steam generating unit subcategory be within 100 km of CO<sub>2</sub> storage.

subsurface geologic formations) is well proven and broadly available throughout the U.S. Geologic sequestration is based on a demonstrated understanding of the processes that affect the fate of CO<sub>2</sub> in the subsurface. As discussed in section VII.F.3.a.iii of this preamble, there have been numerous instances of geologic sequestration in the U.S. and overseas, and the U.S. has developed a detailed set of regulatory requirements to ensure the security of sequestered CO<sub>2</sub>. This regulatory framework includes the UIC Class VI well regulations, which are under the authority of SDWA, and the GHGRP, under the authority of the CAA.

Geologic sequestration potential for CO<sub>2</sub> is widespread and available throughout the U.S. Through an availability analysis of sequestration potential in the U.S. based on resources from the DOE, the USGS, and the EPA, the EPA found that there are 43 States with access to, or are within 100 km from, onshore or offshore storage in deep saline formations, unmineable coal seams, and depleted oil and gas reservoirs.

Sequestration potential as it relates to distance from existing resources is a key part of the EPA's regular power sector modeling development, using data from DOE/NETL studies.<sup>538</sup> These data show that of the coal-fired steam generating units with planned operation during or after 2030, 60 percent are located within the boundary of a saline reservoir, 77 percent are located within 40 miles (80 km) of the boundary of a saline reservoir, and 82 percent are located within 62 miles (100 km) of a saline reservoir. Additionally, of the coal-fired steam generating units with planned operation during or after 2030, 90 percent are located within 100 km of any of the considered formations, including deep saline, unmineable coal seams, and oil and gas reservoirs.<sup>539 540</sup> As noted in section VII.F.3.b.iii(A)(5) of this preamble, areas without reasonable access to pipelines for geologic sequestration can transport CO<sub>2</sub> to sequestration sites via other transportation modes such as ship, road tanker, or rail tank cars.

<sup>538</sup> For details, please see Chapter 6 of the IPM documentation. <https://www.epa.gov/system/files/documents/2021-09/chapter-6-co2-capture-storage-and-transport.pdf>.

<sup>539</sup> The distance of 100 km is consistent with the assumptions underlying the NETL cost estimates for transporting CO<sub>2</sub> by pipeline.

<sup>540</sup> Note that the determination that the BSER has been adequately demonstrated does not require that every source in the long-term coal-fired steam generating unit subcategory be within 100 km of CO<sub>2</sub> storage.

#### ii. Costs

The EPA has analyzed the costs of CCS for existing coal-fired long-term sources, including costs for CO<sub>2</sub> capture, transport, and sequestration. The EPA is proposing that this analysis demonstrates that the costs of CCS for these sources are reasonable. The EPA also evaluated costs assuming a higher capacity factor of 70 percent (resulting in lower costs) and different amortization periods, as discussed in section X.D.1.a.ii(C) of this preamble. The EPA is soliciting comment on the assumptions in the cost analysis, particularly with respect to the capacity factor assumption. As elsewhere in this section of the preamble, costs are presented in 2019 dollars.

The EPA assessed costs of CCS for a reference unit as well as the average cost for the fleet of coal-fired steam generating units with planned operation during or after 2030. The reference unit, which represents an average unit in the fleet, has a 400 MW-gross nameplate capacity and a 10,000 Btu/kWh heat rate. Applying CCS to the reference unit with a 12-year amortization period and assuming a 50 percent annual capacity factor—a typical value for the fleet—results in annualized total costs that can be expressed as an abatement cost of \$14/ton of CO<sub>2</sub> reduced and an incremental cost of electricity of \$12/MWh. Included in these estimates is the EPA's assessment that the transport and storage costs are roughly \$30/ton, on average for the reference unit. For the fleet of coal-fired steam generating units with planned operation during or after 2030, and assuming a 12-year amortization period and 50 percent annual capacity factor and including source specific transport and storage costs, the average total costs of CCS are \$8/ton of CO<sub>2</sub> reduced and \$7/MWh. These total costs also account for the IRC section 45Q tax credit, a detailed discussion of which is provided in section VII.F.3.b.iii(B)(3) of this preamble. Compared to the representative costs of controls detailed in section VII.F.3.b.iii(B)(5) of this preamble (*i.e.*, emission control costs on EGUs of \$10.60 to \$29/MWh and the costs in the 2016 NSPS regulating GHGs for the Crude Oil and Natural Gas source category of \$98/ton of CO<sub>2e</sub> reduced (80 FR 56627; September 18, 2015)) the costs for CCS on long-term coal-fired steam generating units are similar or better. Based on all of these analyses, the EPA is proposing that for the purposes of the BSER analysis, CCS is cost reasonable for long-term coal-fired steam generating units. The EPA also evaluated costs of CCS under

various other assumptions of amortization period and annual capacity factor. Finally, it is noted that these CCS costs are lower than those in prior rulemakings due to the IRC section 45Q tax credit and reductions in the cost of the technology.

#### (A) CO<sub>2</sub> Capture Costs at Existing Coal-Fired Steam Generating Units

A variety of sources provide information for the cost of CCS systems, and they generally agree around a range of cost. The EPA has relied heavily on information recently developed by NETL, in the U.S. Department of Energy, in particular, “Cost and Performance Baseline for Fossil Energy Plants,”<sup>541</sup> and the “Pulverized Coal Carbon Capture Retrofit Database.”<sup>542</sup> In addition, the EPA developed an independent engineering cost assessment for CCS retrofits, with support from Sargent and Lundy.<sup>543</sup>

#### (B) CO<sub>2</sub> Transport and Sequestration Costs

As discussed in section VII.F.3.b.iii of this preamble, NETL’s “Quality Guidelines for Energy System Studies; Carbon Dioxide Transport and Sequestration Costs in NETL Studies” is one of the more comprehensive sources of information on CO<sub>2</sub> transport and storage costs available. The Quality Guidelines provide an estimation of transport costs for a single point-to-point pipeline. Estimated costs reflect pipeline capital costs, related capital expenditures, and operations and maintenance costs.<sup>544</sup> These Quality Guidelines also provide an estimate of sequestration costs reflecting the cost of site screening and evaluation, permitting and construction costs, the cost of injection wells, the cost of injection equipment, operation and maintenance costs, pore volume acquisition expense, and long-term liability protection. NETL’s Quality Guidelines model costs for a given cumulative storage potential.<sup>545</sup>

<sup>541</sup> [https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity\\_101422.pdf](https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity_101422.pdf).

<sup>542</sup> <https://netl.doe.gov/energy-analysis/details?id=69db8281-593f-4b2e-ac68-061b17574fb8>.

<sup>543</sup> Detailed cost information, assessment of technology options, and demonstration of cost reasonableness can be found in the *GHG Mitigation Measures for Steam Generating Units* TSD.

<sup>544</sup> Grant, T., et al. “Quality Guidelines for Energy System Studies; Carbon Dioxide Transport and Storage Costs in NETL Studies.” National Energy Technology Laboratory. 2019. <https://www.netl.doe.gov/energy-analysis/details?id=3743>.

<sup>545</sup> Details on CO<sub>2</sub> transportation and sequestration costs can be found in the *GHG Mitigation Measures for Steam Generating Units* TSD.

#### (C) Amortization Period and Annual Capacity Factor

In the EPA’s cost analysis for long-term coal-fired steam generating units, the EPA assumes a 12-year amortization period and a 50 percent annual capacity factor. The 12-year amortization period is consistent with the period of time during which the IRC section 45Q tax credit can be claimed and the 50 percent annual capacity factor is consistent with the historical fleet average. However, increases in utilization are likely to occur for units that apply CCS due to the incentives provided by the IRC section 45Q tax credit. Therefore, the EPA also assessed the costs for CCS retrofitted to existing coal-fired steam generating units assuming a 70 percent annual capacity factor. For a 70 percent annual capacity factor and a 12-year amortization period, the costs for the reference unit are negative at  $-\$8/\text{ton}$  of CO<sub>2</sub> reduced and  $-\$7/\text{MWh}$ . The negative costs indicate that the value of the 45Q tax credit more than offsets the costs to install and operate CCS. For either capacity factor assumption, the  $\$/\text{MWh}$  costs are comparable to or less than the costs for other controls ( $\$10.60$ – $\$29.00/\text{MWh}$ ) which are detailed in section VII.F.3.b.iii(B)(5) of this preamble.

As noted in section X.C.3 of this preamble, the EPA is also taking comment on the operating horizon that defines the threshold date between the definition of medium-term and long-term coal-fired steam generating units, specifically an operating horizon between 8 and 10 years (*i.e.*, January 1, 2038 to January 1, 2040), instead of the proposed 10-year operating horizon. For a 70 percent annual capacity factor and an 8-year amortization period, annualized costs of applying CCS for the reference unit are  $\$24/\text{ton}$  of CO<sub>2</sub> reduced and  $\$21/\text{MWh}$ , and it is possible that the cost of generation may be reasonable relative to the representative cost for wet FGD. However, CCS may be less cost favorable for units with shorter amortization periods. For a 70 percent annual capacity factor and a 7-year amortization period, costs for the reference unit are  $\$39/\text{ton}$  of CO<sub>2</sub> reduced and  $\$34/\text{MWh}$ . Additional details of the cost analysis are available in the *GHG Mitigation Measures for Steam Generating Units* TSD.

#### (D) Comparison to Costs for CCS in Prior Rulemakings

In the CPP and ACE Rule, the EPA determined that CCS did not qualify as the BSER due to cost considerations. Two key developments have led the

EPA to reevaluate this conclusion: the costs of CCS technology have fallen and the extension and increase in the IRC section 45Q tax credit, as included in the IRA, in effect provide a significant stream of revenue for sequestered CO<sub>2</sub> emissions. The CPP and ACE Rule relied on a 2015 NETL report estimating the cost of CCS. NETL has issued updated reports to incorporate the latest information available, most recently in 2022, which show cost reductions. The 2015 report estimated incremental levelized cost of CCS at a new pulverized coal facility relative to a new facility without CCS at  $\$74/\text{MWh}$  (2022\$),<sup>546</sup> while the 2022 report estimated incremental levelized cost at  $\$44/\text{MWh}$  (2022\$).<sup>547</sup> Additionally, the IRA increased the IRC section 45Q tax credit from  $\$50/\text{metric ton}$  to  $\$85/\text{metric ton}$  (and, in the case of EOR or certain industrial uses, from  $\$35/\text{metric ton}$  to  $\$60/\text{metric ton}$ ), assuming prevailing wage and apprenticeship conditions are met. The IRA also enhanced the realized value of the tax credit through the direct pay and transferability monetization options described in section IV.E.1. The combination of lower costs and higher tax credits significantly improves the cost effectiveness of CCS for purposes of determining whether it qualifies as the BSER.

#### iii. Non-Air Quality Health and Environmental Impact and Energy Requirements

CCS for steam generating units is not expected to have unreasonable adverse consequences related to non-air quality health and environmental impacts or energy requirements. The EPA has considered non-GHG emissions impacts, the water use impacts, the transport and sequestration of captured CO<sub>2</sub>, and energy requirements resulting from CCS. Because the non-air quality health and environmental impacts are closely related to the energy requirements, the latter are discussed first.

As noted in section VII.F.3.b.iii(C) of this preamble, stakeholders have shared with the EPA concerns about the safety of CCS projects and concerns that their communities may bear a

<sup>546</sup> Cost And Performance Baseline for Fossil Energy Plants Volume 1: Bituminous Coal and Natural Gas to Electricity, Rev. 3 (July 2015). [https://www.netl.doe.gov/projects/files/CostandPerformanceBaselineforFossilEnergyPlantsVolume1aBitCoalPCandNaturalGastoElectRev3\\_070615.pdf](https://www.netl.doe.gov/projects/files/CostandPerformanceBaselineforFossilEnergyPlantsVolume1aBitCoalPCandNaturalGastoElectRev3_070615.pdf).

<sup>547</sup> Cost And Performance Baseline for Fossil Energy Plants Volume 1: Bituminous Coal and Natural Gas to Electricity, Rev. 4A (October 2022). [https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity\\_101422.pdf](https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVolume1BituminousCoalAndNaturalGasToElectricity_101422.pdf).



disproportionate environmental burden associated with CCS projects. The EPA is committed to working with its fellow agencies to foster meaningful engagement with communities and protect communities from pollution through the responsible deployment of CCS. This can be facilitated through the existing detailed regulatory framework for CCS projects and further supported through robust and meaningful public engagement early in the technological deployment process. CCS projects undertaken pursuant to these emission guidelines will, if the EPA finalizes proposed revisions to the CAA section 111 implementing regulations,<sup>548</sup> be subject to requirements for meaningful engagement as part of the State plan development process. See section XII.F.1.b of this preamble for additional details.

#### (A) Energy Requirements

For a steam generating unit with 90 percent amine-based CO<sub>2</sub> capture, parasitic/auxiliary energy demand increases and the net power output decreases. Amine-based CO<sub>2</sub> capture is an energy-intensive process. In particular, the solvent regeneration process requires substantial amounts of heat in the form of steam and CO<sub>2</sub> compression requires a large amount of electricity. Heat and power for the CO<sub>2</sub> capture equipment can be provided either by using the steam and electricity produced by the steam generating unit or by an auxiliary cogeneration unit. However, any auxiliary source of heat and power is part of the “designated facility,” along with the steam generating unit. The standards of performance apply to the designated facility. Thus, any CO<sub>2</sub> emissions from the connected auxiliary equipment need to be captured or they will increase the facility’s emission rate.

Using integrated heat and power can reduce the capacity (*i.e.*, the amount of electricity that a unit can distribute to the grid) of an approximately 474 MW-net (501 MW-gross) coal-fired steam generating unit without CCS to approximately 425 MW-net with CCS and contributes to a reduction in net efficiency of 23 percent.<sup>549</sup> For retrofits of CCS on existing sources, the ductwork for flue gas and piping for heat integration to overcome potential spatial constraints are a component of efficiency reduction. The EPA notes that slightly greater efficiency reductions

than in the 2016 NETL retrofit report are assumed for the BSER cost analyses, as detailed in the *GHG Mitigation Measures for Steam Generating Units* TSD, available in the docket. Despite decreases in efficiency, IRC section 45Q tax credits provide an incentive for increased generation with full operation of CCS because the credits are proportional to the amount of captured and sequestered CO<sub>2</sub> emissions and not to the amount of electricity generated. The Agency is proposing that the energy penalty is relatively minor compared to the GHG benefits of CCS and, therefore, does not disqualify CCS as being considered the BSER for existing coal-fired steam generating units.

Additionally, the EPA considered the impacts on the power sector, on a nationwide and long-term basis, of determining CCS to be the BSER for long-term coal-fired steam generating units. The EPA is proposing that designating CCS as the BSER for existing long-term coal-fired steam generating units would have limited and non-adverse impacts on the long-term structure of the power sector. Absent the requirements defined in this action, the EPA projects that 9 GW of coal-fired steam generating units would apply CCS by 2030 and 35 GW of coal-fired steam generating units, some without controls, would remain in operation in 2040. Designating CCS to be the BSER for existing long-term coal-fired steam generating units would likely result in more of the coal-fired steam generating unit capacity applying CCS. The time available before the compliance deadline of January 1, 2030, provides for adequate resource planning, including accounting for the downtime necessary to install the CO<sub>2</sub> capture equipment at long-term coal-fired steam generating units. While the IRC 45Q tax credit is available, long-term coal-fired steam generating units are anticipated to run at base load conditions. Total generation from coal-fired steam generating units in the other subcategories would gradually decrease over an extended period of time through 2039, subject to the commitments those units have chosen to adopt. Any decreases in the amount of generation from coal-fired steam generating units, whether locally or more broadly, are compensated for by increased generation from other sources. Additionally, for the long-term units applying CCS, the EPA is proposing the increase in the annualized cost of generation for those units is reasonable.

Therefore, the EPA is proposing that there would be no unreasonable impacts on the reliability of electricity generation. A broader discussion of

reliability impacts of the proposed actions is available in section XIV.F of this preamble. Finally, changes in the amount of generation from coal-fired steam generating units may contribute to additional generation from combined cycle combustion turbines. Since these EGUs have lower GHG and criteria pollutant emission rates than existing coal-fired steam generating units, overall emissions from the power sector would likely decrease.

#### (B) Non-GHG Emissions

For amine-based CO<sub>2</sub> capture retrofits to coal-fired steam generating units, decreased efficiency and increased utilization would otherwise result in increases of non-GHG emissions; however, importantly, most of those impacts would be mitigated by the flue gas conditioning required by the CO<sub>2</sub> capture process and by other control equipment that the units already have or may need to install to meet other CAA requirements. Decreases in efficiency result in increases in the relative amount of coal combusted per amount of electricity generated and would otherwise result in increases in the amount of non-GHG pollutants emitted per amount of electricity generated. Additionally, increased utilization would otherwise result in increases in total non-GHG emissions. However, substantial flue gas conditioning, particularly to remove SO<sub>2</sub>, is critical to limiting solvent degradation and maintaining reliable operation of the capture plant. To achieve the necessary limits on SO<sub>2</sub> levels in the flue gas for the capture process, steam generating units will need to add an FGD column, if they do not already have one, and may need an additional polishing column (*i.e.*, quencher). A wet FGD column and a polishing column will also reduce the emission rate of particulate matter. Additional improvements in particulate matter removal may also be necessary to reduce the fouling of other components (*e.g.*, heat exchangers) of the capture process. NO<sub>x</sub> emissions can cause solvent degradation and nitrosamine formation by chemical absorption of NO<sub>x</sub>, depending on the chemical structure of the solvent. The DOE’s Carbon Management Pathway report notes that monitoring and emission controls for such degradation products are currently part of standard operating procedures for amine-based CO<sub>2</sub> capture systems.<sup>550</sup>

<sup>548</sup> 87 FR 79176, 79190–92 (December 23, 2022).

<sup>549</sup> DOE/NETL–2016/1796. “Eliminating the Derate of Carbon Capture Retrofits.” May 31, 2016. <https://www.netl.doe.gov/energy-analysis/details?id=d335ce79-84ee-4a0b-a27b-c1a64eddb866>.

<sup>550</sup> U.S. Department of Energy (DOE). Pathways to Commercial Liftoff: Carbon Management. [https://liftoff.energy.gov/wp-content/uploads/2023/04/20230424-Liftoff-Carbon-Management-vPUB\\_update.pdf](https://liftoff.energy.gov/wp-content/uploads/2023/04/20230424-Liftoff-Carbon-Management-vPUB_update.pdf).

A conventional multistage water or acid wash and mist eliminator at the exit of the CO<sub>2</sub> scrubber is effective at removal of gaseous amine and amine degradation products (e.g., nitrosamine) emissions.<sup>551</sup> NO<sub>x</sub> levels of the flue gas required to avoid solvent degradation and nitrosamine formation in the CO<sub>2</sub> scrubber vary. For most units, the requisite limits on NO<sub>x</sub> levels to assure that the CO<sub>2</sub> capture process functions properly may be met by the existing NO<sub>x</sub> combustion controls, and those units may not need to install SCR for process purposes. However, most existing coal-fired steam generating units either already have SCR or will be covered by proposed Federal Implementation Plan (FIP) requirements regulating interstate transport of NO<sub>x</sub> (as an ozone precursor) from EGUs. See 87 FR 20036 (April 6, 2022). For units not otherwise required to have SCR, an increase in utilization from a CO<sub>2</sub> capture retrofit could result in increased NO<sub>x</sub> emissions at the source that, depending on the quantity of the emissions increase, may trigger major NSR permitting requirements. Under this scenario, the permitting authority may determine that the NSR permit requires the installation of SCR for those units, based on applying the requirements of major NSR. Alternatively, a State could, as part of its State plan, develop enforceable conditions for a source expected to trigger major NSR that would effectively limit the unit's ability to increase its emissions in amounts that would trigger major NSR. Under this scenario, with no major NSR requirements applying due to the limit on the emissions increase, the permitting authority may conclude for minor NSR purposes that installation of SCR is not required for the units. See section XIII.A of this preamble for additional discussion of the NSR program.

#### (C) Water Use and Siting

Water consumption at the plant increases when applying carbon capture, due to solvent water makeup and cooling demand. Water consumption can increase by 36 percent on a gross basis.<sup>553</sup> A separate cooling

water system dedicated to a CO<sub>2</sub> capture plant may be necessary. However, the amount of water consumption depends on the design of the cooling system. For example, the cooling system cited in the CCS feasibility study for SaskPower's Shand Power station would rely entirely on water condensed from the flue gas and thus would not require any increase in external water consumption.<sup>554</sup> Regions with limited water supply may rely on dry or hybrid cooling systems, although, in areas with adequate water, wet cooling systems can be more effective.

With respect to siting considerations, CO<sub>2</sub> capture systems have a sizeable physical footprint and a consequent land-use requirement. The EPA is proposing that the water use and siting requirements are manageable and therefore the EPA does not expect any of these considerations to preclude coal-fired power plants generally from being able to install and operate CCS. However, the EPA is soliciting comment on these issues.

#### (D) Transport and Geologic Sequestration

As noted in section VII.F.3.b.iii of this preamble, PHMSA oversight of supercritical CO<sub>2</sub> pipeline safety protects against environmental release during transport and UIC Class VI regulations under the SDWA, in tandem with GHGRP subpart RR requirements, ensure the protection of USDWs and the security of geologic sequestration.

#### iv. Extent of Reductions in CO<sub>2</sub> Emissions

CCS can be applied to coal-fired steam generating units at the source and reduce the CO<sub>2</sub> emission rate by 90 percent or more. Increased steam and power demand have a small impact on the reduction in emission rate that occurs with 90 percent capture. According to the 2016 NETL Retrofit report, 90 percent capture will result in emission rates that are 88.4 percent lower on a lb/MWh-gross basis and 87.1 percent lower on a lb/MWh-net basis compared to units without capture.<sup>555</sup> After capture, CO<sub>2</sub> can be transported

*details?id=e818549c-a565-4cbc-94db-442a1c2a70a9.*

<sup>554</sup> International CCS Knowledge Centre. The Shand CCS Feasibility Study Public Report. [https://ccsknowledge.com/pub/Publications/Shand\\_CCS\\_Feasibility\\_Study\\_Public\\_Report\\_Nov2018\\_\(2021-05-12\).pdf](https://ccsknowledge.com/pub/Publications/Shand_CCS_Feasibility_Study_Public_Report_Nov2018_(2021-05-12).pdf).

<sup>555</sup> DOE/NETL-2016/1796. "Eliminating the Derate of Carbon Capture Retrofits." May 31, 2016. [https://www.netl.doe.gov/energy-analysis/details?id=e818549c-a565-4cbc-94db-442a1c2a70a9.](https://www.netl.doe.gov/energy-analysis/details?id=e818549c-a565-4cbc-94db-442a1c2a70a9)

and securely sequestered.<sup>556</sup> Although steam generating units with CO<sub>2</sub> capture will have an incentive to operate at higher utilization because the cost to install the CCS system is largely fixed and the IRC section 45Q tax credit increases based on the amount of CO<sub>2</sub> captured and sequestered, any increase in utilization will be far outweighed by the substantial reductions in emission rate.

#### v. Technology Advancement

The EPA considered the potential impact of designating CCS as the BSER for long-term coal-fired steam generating units on technology advancement, and the EPA is proposing that designating CCS as the BSER will provide for meaningful advancement of CCS technology, for many of the same reasons as noted in section VII.F.3.b.iii(F) of this preamble.

#### vi. Comparison With 2015 NSPS for Newly Constructed Coal-Fired EGUs

In the 2015 NSPS, the EPA determined that the BSER for newly constructed coal-fired EGUs was based on CCS with 16–23 percent capture, based on the type of coal combusted, and consequently, the EPA promulgated standards of performance of 1,400 lb CO<sub>2</sub>/MWh—g. 80 FR 64512 (Table 1), 64513 (October 23, 2015). The EPA made those determinations based on the costs of CCS at the time of that rulemaking. In general, those costs were significantly higher than at present, due to recent technology cost declines as well as related policies, including the IRC section 45Q tax credit for CCS, which was not available at that time for purposes of consideration during the development of the NSPS. Id. at 64562 (Table 8). Based on of these higher costs, the EPA determined that 16–23 percent capture qualified as the BSER, and not a significantly higher percentage of capture. Given the substantial differences in the cost of CCS during the time of the 2015 NSPS and the present time, the capture percentage of the 2015 NSPS necessarily differed from the capture percentage in this proposal, and, by the same token, the associated degree of emission limitation and resulting standards of performance necessarily differ as well.

#### b. Natural Gas Co-Firing

The EPA also evaluated natural gas co-firing at 40 percent of the heat input as the potential BSER for long-term coal-fired steam generating units. Because

<sup>556</sup> Intergovernmental Panel on Climate Change. (2005). Special Report on Carbon Dioxide Capture and Storage.

<sup>551</sup> Sharma, S., Azzi, M., "A critical review of existing strategies for emission control in the monoethanolamine-based carbon capture process and some recommendations for improved strategies," *Fuel*, 121, 178 (2014).

<sup>552</sup> Mertens, J., et al., "Understanding ethanolamine (MEA) and ammonia emissions from amine-based post combustion carbon capture: Lessons learned from field tests," *Int'l J. of GHG Control*, 13, 72 (2013).

<sup>553</sup> DOE/NETL-2016/1796. "Eliminating the Derate of Carbon Capture Retrofits." May 31, 2016. <https://www.netl.doe.gov/energy-analysis/>

the EPA is proposing natural gas co-firing as the BSER for medium-term units, details that are common to medium-term and long-term units are discussed in section X.D.2.b of the preamble. Based on the discussion therein, the EPA is proposing that natural gas co-firing is adequately demonstrated and that the non-air quality health and environmental effects and energy requirements are not unreasonable. The costs of natural gas co-firing for a long-term unit may also be reasonable. For example, for a representative unit with a 10-year amortization period, the cost of reductions is \$53/ton of CO<sub>2</sub>. Finally, while 40 percent natural gas co-firing achieves unit-level emission rate reductions of 16 percent, those reductions are less than CCS with 90 percent capture. Therefore, because CCS achieves more reductions at the unit level and is proposed as cost reasonable for long-term units, the EPA is not proposing natural gas co-firing as the BSER for long-term coal-fired steam generating units.

### c. Conclusion

The EPA proposes that CCS at a capture rate of 90 percent is the BSER for long-term coal-fired steam generating units because CCS is adequately demonstrated, as indicated by the facts that it has been operated at scale and is widely applicable to sources and that there are vast sequestration opportunities across the continental U.S. Additionally, accounting for recent technology cost declines as well as policies including the tax credit under IRC section 45Q, the costs for CCS are reasonable. Moreover, any adverse non-air quality health and environmental impacts and energy requirements of CCS, including impacts on the power sector on a nationwide basis, are limited and are outweighed by the benefits of the significant GHG emission reductions at reasonable cost. In contrast, co-firing 40 percent natural gas would achieve far fewer emission reductions without improving the cost effectiveness of the control strategy. These considerations provide the basis for proposing CCS as the best of the systems of emission reduction for long-term coal-fired power plants. In addition, determining CCS as the BSER promotes this useful control technology. Although the EPA believes that long-lived coal-fired power plants will generally be able to implement and operate CCS within the cost parameters calculated as part of the BSER analysis, and therefore that they would be able to meet a standard of performance based on CCS with 90 percent capture, the EPA solicits comment on whether

particular plants would be unable to do so, including details of the circumstances that might make retrofitting with CCS unreasonable or infeasible.

### 2. Medium-Term Coal-Fired Steam Generating Units

In this section of the preamble, the EPA evaluates CCS and natural gas co-firing as potential BSER for medium-term coal-fired steam generating units.

In section X.D.1.a of this preamble, the EPA evaluated CCS with 90 percent capture of CO<sub>2</sub> as the BSER for long-term coal-fired steam generating units. Much of this evaluation is relevant for medium-term units. However, because they have shorter operating horizons and, as a result, a shorter period for amortization and for collecting the IRC section 45Q tax credits, CCS would be less cost effective for those units. Therefore, the EPA is not proposing CCS as BSER for medium-term coal-fired steam generating units.

Instead, the EPA is proposing that 40 percent natural gas co-firing on a heat input basis is the BSER for medium-term coal-fired steam generating units. Co-firing 40 percent natural gas, on an annual average heat input basis, results in a 16 percent reduction in CO<sub>2</sub> emission rate. The technology has been adequately demonstrated, can be implemented at reasonable cost, does not have adverse non-air quality health and environmental impacts or energy requirements, and achieves meaningful reductions in CO<sub>2</sub> emissions. Co-firing also advances useful control technology and has acceptable national and long-term impacts on the energy sector, which provide additional, although not essential, support for treating it as the BSER.

#### a. CCS

In this section of the preamble, the EPA evaluates the use of CCS as the BSER for existing medium-term coal-fired steam generating units. This evaluation is much the same as the evaluation for long-term units, with the important difference of costs.

For long-term units, as discussed earlier in this preamble, the EPA's analysis used to evaluate the reasonableness of CCS costs employs a 12-year amortization period, which is consistent with the period of time during which the IRC section 45Q tax credit can be claimed. However, existing coal-fired steam generating units that have elected to commit to permanently cease operations prior to 2040—ones in the medium-term subcategory, as well as in the near-term, and imminent-term subcategories—would have a shorter

period to amortize capital costs and also would not be able to fully utilize the IRC section 45Q tax credit. As a result, for these sources, the cost effectiveness of CCS is less favorable. As noted in section X.D.1.a.ii(C) of this preamble, for a 70 percent annual capacity factor and a 7-year amortization period, costs for the reference unit are \$39/ton of CO<sub>2</sub> reduced and \$34/MWh. This \$/MWh generation cost is less favorable relative to the representative cost (\$/MWh) for wet FGD, the costs for which are detailed in section VII.F.3.b.iii(B)(5). Due to the higher incremental cost of generation, the EPA is not proposing CCS as the BSER for medium-term coal-fired steam generating units.

While the EPA is not proposing CCS as BSER for the proposed subcategory of medium-term units, the EPA is taking comment on the operating horizon (*i.e.*, between 8 and 10 years, instead of the proposed 10-year operating horizon) that most appropriately defines the threshold date between medium-term and long-term units and the EPA is also taking comment on the level of costs of CCS that should be considered reasonable.

#### b. Natural Gas Co-Firing

In this section of the preamble, the EPA evaluates natural gas co-firing as potential BSER for medium-term coal-fired steam generating units. Considerations that are common to the proposed subcategories of existing coal-fired steam generating units are discussed in section X.D.1.a of the preamble, in addition to considerations that are specific to medium-term units.

For a coal-fired steam generating unit, the substitution of natural gas for some of the coal, so that the unit fires a combination of coal and natural gas, is known as “natural gas co-firing.” The EPA is proposing natural gas co-firing at a level of 40 percent of annual heat input as BSER for medium-term coal-fired steam generating units.

#### i. Adequately Demonstrated

The EPA is proposing to find that natural gas co-firing at the level of 40 percent of annual heat input is adequately demonstrated for coal-fired steam generating units. Many existing coal-fired steam generating units already use some amount of natural gas, and several have co-fired at relatively high levels at or above 40 percent of heat input in recent years.

#### (A) Boiler Modifications

Most existing coal-fired steam generating units can be modified to co-fire natural gas in any desired proportion with coal, up to 100 percent

natural gas. Generally, the modification of existing boilers to enable or increase natural gas firing typically involves the installation of new gas burners and related boiler modifications, including, for example, new fuel supply lines and modifications to existing air ducts. The introduction of natural gas as a fuel can reduce boiler efficiency slightly, due in large part to the relatively high hydrogen content of natural gas. However, since the reduction in coal can result in reduced auxiliary power demand, the overall impact on net heat rate can range from a 2 percent increase to a 2 percent decrease.

It is common practice for steam generating units to have the capability to burn multiple fuels onsite, and of the 565 coal-fired steam generating units operating at the end of 2021, 249 of them reported consuming natural gas as a fuel or startup source. Coal-fired steam generating units often use natural gas or oil as a startup fuel, to warm the units up before running them at full capacity with coal. While startup fuels are generally used at low levels (up to roughly 1 percent of capacity on an annual average basis), some coal-fired steam generating units have co-fired natural gas at considerably higher shares. Based on hourly reported CO<sub>2</sub> emission rates from the start of 2015 through the end of 2020, 29 coal-fired steam generating units co-fired with natural gas at rates at or above 60 percent of capacity on an hourly basis.<sup>557</sup> The capability of those units on an hourly basis is indicative of the extent of boiler burner modifications and sizing and capacity of natural gas pipelines to those units, and implies that those units are technically capable of co-firing at least 60 percent natural gas on a heat input basis on average over the course of an extended period (e.g., a year). Additionally, during that same 2015 through 2020 period, 29 coal-fired steam generating units co-fired natural gas at over 40 percent on an annual heat input basis. Because of the number of units that have demonstrated co-firing above 40 percent of heat input, the EPA is proposing that co-firing at 40 percent is adequately demonstrated. A more detailed discussion of the record of natural gas co-firing, including current trends, at coal-fired steam generating units is included in the *GHG Mitigation Measures for Steam Generating Units TSD*.

<sup>557</sup> U.S. Environmental Protection Agency (EPA). "Power Sector Emissions Data." Washington, DC: Office of Atmospheric Protection, Clean Air Markets Division. Available from EPA's Air Markets Program Data website: <https://campd.epa.gov>.

#### (B) Natural Gas Pipeline Development

In addition to any potential boiler modifications, the supply of natural gas is necessary to enable co-firing at existing coal-fired steam boilers. As discussed in the previous section, many plants already have at least some access to natural gas. In order to increase natural gas access beyond current levels, many will find it necessary to construct natural gas supply pipelines.

The U.S. natural gas pipeline network consists of approximately 3 million miles of pipelines that connect natural gas production with consumers of natural gas. To increase natural gas consumption at a coal-fired boiler without sufficient existing natural gas access, it is necessary to connect the facility to the natural gas pipeline transmission network via the construction of a lateral pipeline. The cost of doing so is a function of the total necessary pipeline capacity (which is characterized by the length, size, and number of laterals) and the location of the plant relative to the existing pipeline transmission network. The EPA estimated the costs associated with developing new lateral pipeline capacity sufficient to meet 60 percent of the net summer capacity at each coal-fired steam generating unit. As discussed in the *GHG Mitigation Measures for Steam Generating Units TSD*, the EPA estimates that this lateral capacity would be sufficient to enable each unit to achieve 40 percent natural gas co-firing on an annual average basis.

The EPA considered the availability of the upstream natural gas pipeline capacity to satisfy the assumed co-firing demand implied by these new laterals. This analysis included pipeline development at all EGUs that could be included in this subcategory. The EPA's assessment reviewed the reasonableness of each assumed new lateral by determining whether the peak gas capacity of that lateral could be satisfied without modification of the transmission pipeline systems to which it is assumed to be connected. This analysis found that most, if not all, existing pipeline systems are currently able to meet the peak needs implied by these new laterals in aggregate, assuming that each existing coal-fired unit in the analysis co-fired with natural gas at a level implied by these new laterals, or 60 percent of net summer generating capacity. While this is a reasonable assumption for the analysis to support this mitigation measure in the BSER context, it is also a conservative assumption that overstates the amount of natural gas co-firing expected under the proposed rule.

The maximum amount of pipeline capacity, if all coal-fired steam capacity in the medium-term subcategory implemented the proposed BSER by co-firing 40 percent natural gas, would be a fraction of the pipeline capacity constructed recently. The EPA estimates that this maximum total capacity would be about 17.3 billion cubic feet per day, which would require almost 4,000 miles of pipeline costing roughly \$13.3 billion. Over 5 years, this maximum total incremental pipeline capacity would amount to 800 miles per year and approximately \$2.7 billion per year in capital expenditures, on average. By comparison, based on data collected by EIA, the total annual mileage of natural gas pipelines constructed over the 2017–2021 period ranged from approximately 1,000 to 2,500 miles per year, with a total capacity of 10 to 25 billion cubic feet per day. This represents an estimated annual investment of up to nearly \$15 billion. These historical annual values are much higher than the maximum annual values that could be expected under this proposed BSER measure—which, as noted above, represent a conservative estimate that overstates the amount of co-firing that the EPA projects would occur under this proposed rule.

These conservatively high estimates of pipeline requirements also compare favorably to industry projections of future pipeline capacity additions. Based on a review of a 2018 industry report, titled "North America Midstream Infrastructure through 2035: Significant Development Continues," investment in midstream infrastructure development is expected to average about \$37 billion per year through 2035, which is lower than historical levels. Approximately \$10 to \$20 billion annually is expected to be invested in natural gas pipelines through 2035. This report also projects that an average of over 1,400 miles of new natural gas pipeline will be built through 2035, which is similar to the approximately 1,670 miles that were built on average from 2013 to 2017. These values are considerably greater than the average annual expenditure of \$2.7 billion on 800 miles per year of new pipeline construction that would be necessary for the entire operational fleet of coal-fired steam generating units to co-fire with natural gas. The actual pipeline investment for this subcategory would be substantially lower.

#### ii. Costs

The capital costs associated with the addition of new gas burners and other necessary boiler modifications depend on the extent to which the current boiler is already able to co-fire with some

natural gas and on the amount of gas co-firing desired. The EPA estimates that, on average, the total capital cost associated with modifying existing boilers to operate at up to 100 percent of heat input using natural gas is approximately \$52/kW. These costs could be higher or lower, depending on the equipment that is already installed and the expected impact on heat rate or steam temperature.

While fixed O&M (FOM) costs can potentially decrease as a result of decreasing the amount of coal consumed, it is common for plants to maintain operation of one coal pulverizer at all times, which is necessary for maintaining several coal burners in continuous service. In this case, coal handling equipment would be required to operate continuously and therefore natural gas co-firing would have limited effect on reducing the coal-related FOM costs. Although, as noted, coal-related FOM costs have the potential to decrease, the EPA does not anticipate a significant increase in impact on FOM costs related to co-firing with natural gas.

In addition to capital and FOM cost impacts, any additional natural gas co-firing would result in incremental costs related to the differential in fuel cost, taking into consideration the difference in delivered coal and gas prices, as well as any potential impact on the overall net heat rate. The EPA's post-IRA 2022 reference case projects that in 2030, the average delivered price of coal will be \$1.47/MMBtu and the average delivered price of natural gas will be \$2.53/MMBtu. Thus, assuming the same level of generation and no impact on heat rate, the additional fuel cost would be above \$1/MMBtu on average in 2030. The total additional fuel cost could increase or decrease depending on the potential impact on net heat rate. An increase in net heat rate, for example, would result in more fuel required to produce a given amount of generation and thus additional cost. In the *GHG Mitigation Measures for Steam Generating Units TSD*, the EPA's cost estimates assume a 1 percent increase in net heat rate.

Finally, for plants without sufficient access to natural gas, it is also necessary to construct new natural gas pipelines ("laterals"). Pipeline costs are typically expressed in terms of dollars per inch of pipeline diameter per mile of pipeline distance (*i.e.*, dollars per inch-mile), reflecting the fact that costs increase with larger diameters and longer pipelines. On average, the cost for lateral development within the contiguous U.S. is approximately \$280,000 per inch-mile (2019\$), which

can vary based on site-specific factors. The total pipeline cost for each coal-fired steam generating unit is a function of this cost, as well as a function of the necessary pipeline capacity and the location of the plant relative to the existing pipeline transmission network. The pipeline capacity required depends on the amount of co-firing desired as well as on the desired level of generation—a higher degree of co-firing while operating at full load would require more pipeline capacity than a lower degree of co-firing while operating at partial load. It is reasonable to assume that most plant owners would develop sufficient pipeline capacity to deliver the maximum amount of desired gas use in any moment, enabling higher levels of co-firing during periods of lower fuel price differentials. Once the necessary pipeline capacity is determined, the total lateral cost can be estimated by considering the location of each plant relative to the existing natural gas transmission pipelines as well as the available excess capacity of each of those existing pipelines. For purposes of the cost reasonableness estimates as follows, the EPA assumes pipeline costs of \$92/kW, which is the median value of all unit-level pipeline cost estimates, as explained in the *GHG Mitigation Measures for Steam Generating Units TSD*. The range in costs reflects a range in the amortization period of the capital costs over 6 to 10 years, which is consistent with the amount of time over which the units in the medium-term subcategory could be operational.

The EPA sums the natural gas co-firing costs as follows: For a typical base load coal-fired steam generating unit in 2030, the EPA estimates that the cost of co-firing with 40 percent natural gas on an annual average basis is approximately \$53 to \$66/ton CO<sub>2</sub> reduced, or \$9 to \$12/MWh, respective to amortization periods of 10 to 6 years. This estimate is based on the characteristics of a typical coal-fired unit in 2021 (400 MW capacity and an average heat rate of 10,500 Btu/kWh) operating at a typical capacity factor of about 50 percent, and it assumes a pipeline cost of \$92/kW, as discussed earlier in this preamble.

Based on the coal-fired steam generating units that existed in 2021 and that do not have known plans to cease operations or convert to gas by 2030, and assuming that each of those units continues to operate at the same level in 2030 as it operated in 2017–2021, on average, the EPA estimates that the weighted average cost of co-firing with 40 percent natural gas on an annual average basis is approximately

\$64 to \$78/ton CO<sub>2</sub> reduced, or \$11 to \$14/MWh. The \$/ton cost estimate is lower than average for approximately 82 GW, and the \$/MWh cost estimate is lower than average for 86 GW (about 69 percent and 72 percent, respectively, of the relevant coal fleet). These estimates and all underlying assumptions are explained in detail in the *GHG Mitigation Measures for Steam Generating Units TSD*.

As was described in section X.D.1 of this preamble, the EPA has compared the estimated costs discussed in section X.D.2 of this preamble to costs that coal-fired steam generating units have incurred to install controls that reduce other air pollutants, such as SO<sub>2</sub>. Compared to the representative costs of controls detailed in section VII.F.3.b.iii(B)(5) of this preamble (*i.e.*, emission control costs on EGUs of \$10.60 to \$29/MWh and the costs in the 2016 NSPS regulating GHGs for the Crude Oil and Natural Gas source category of \$98/ton of CO<sub>2e</sub> reduced (80 FR 56627; September 18, 2015)), both estimates of annualized costs of natural gas co-firing (approximately \$53–\$66/ton or \$9–\$12/MWh for a typical unit and \$64–\$78/ton or \$11–\$14/MWh on average) are comparable or lower. The range of cost effectiveness estimates presented in this section is lower than previously estimated by the EPA in the proposed CPP, for several reasons. Since then, the expected difference between coal and gas prices has decreased significantly, from over \$3/MMBtu to about \$1/MMBtu in this proposal. Additionally, a recent analysis performed by Sargent and Lundy for the EPA supports a considerably lower capital cost for modifying existing boilers to co-fire with natural gas. The EPA also recently conducted a highly detailed facility-level analysis of natural gas pipeline costs, the median value of which is slightly lower than the value used by the EPA previously to approximate the cost of co-firing at a representative unit.

Based on the cost analysis presented in this section, the EPA is proposing that the costs of natural gas co-firing are reasonable for the medium-term coal-fired steam generating unit subcategory.

### iii. Non-Air Quality Health and Environmental Impact and Energy Requirements

Natural gas co-firing for steam generating units is not expected to have any significant adverse consequences related to non-air quality health and environmental impacts or energy requirements.

## (A) Non-GHG Emissions

Non-GHG emissions are reduced when steam generating units co-fire with natural gas because less coal is combusted. SO<sub>2</sub>, PM<sub>2.5</sub>, acid gas, mercury and other hazardous air pollutant emissions that result from coal combustion are reduced proportionally to the amount of natural gas consumed, *i.e.*, under this proposal, by 40 percent. Natural gas combustion does produce NO<sub>x</sub> emissions, but in lesser amounts than from coal-firing. However, the magnitude of this reduction is dependent on the combustion system modifications that are implemented to facilitate natural gas co-firing.

Additionally, sufficient regulations exist related to natural gas pipelines and transport that assure natural gas can be safely transported with minimal risk of environmental release. PHMSA develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million mile pipeline transportation system. Recently, PHMSA finalized a rule that will improve the safety and strengthen the environmental protection of more than 300,000 miles of onshore gas transmission pipelines.<sup>558</sup> PHMSA also recently promulgated a rule covering natural gas transmission,<sup>559</sup> as well as a rule that significantly expanded the scope of safety and reporting requirements for more than 400,000 miles of previously unregulated gas gathering lines.<sup>560</sup> Additionally, FERC oversees the development of new natural gas pipelines.

## (B) Energy Requirements

The introduction of natural gas co-firing will cause steam boilers to be slightly less efficient due to the high hydrogen content of natural gas. Co-firing at levels between 20 percent and 100 percent can be expected to decrease boiler efficiency between 1 percent and 5 percent. However, despite the decrease in boiler efficiency, the overall net output efficiency of a steam generating unit that switches from coal to natural gas-firing may change only slightly, in either a positive or negative direction. Since co-firing reduces coal

consumption, the auxiliary power demand related to coal handling and emissions controls typically decreases as well. While a site-specific analysis would be required to determine the overall net impact of these countervailing factors, generally the effect of co-firing on net unit heat rate can vary within approximately plus or minus 2 percent.

The EPA previously determined in the ACE Rule (84 FR 32520 at 32545; July 8, 2019) that “co-firing natural gas in coal-fired utility boilers is not the best or most efficient use of natural gas and [ . . . ] can lead to less efficient operation of utility boilers.” That determination was informed by the more limited supply of natural gas, and the larger amount of coal-fired EGU capacity and generation, in 2019. Since that determination, the expected supply of natural gas has expanded considerably, and the capacity and generation of the existing coal-fired fleet has decreased, reducing the total mass of natural gas that might be required for sources to implement this measure. Additionally, the natural gas co-firing measure is now being proposed for a medium-term coal-fired steam generating unit subcategory, a group of units that will operate at most for 10 years following the compliance date, which would further reduce the total amount of required natural gas.

Furthermore, regarding the efficient operation of boilers, the ACE determination was based on the observation that “co-firing can negatively impact a unit's heat rate (efficiency) due to the high hydrogen content of natural gas and the resulting production of water as a combustion by-product.” That finding does not consider the fact that the effect of co-firing on net unit heat rate can vary within approximately plus or minus 2 percent, and therefore the net impact on overall utility boiler efficiency for each steam generating unit is uncertain.

For all of these reasons, the EPA is proposing that natural gas co-firing at medium-term coal-fired steam generating units does not result in any significant adverse consequences related to energy requirements.

Additionally, the EPA considered longer term impacts on the energy sector, and the EPA is proposing these impacts are reasonable. Designating natural gas co-firing as the BSER for medium-term coal-fired steam generating units would not have significant adverse impacts on the structure of the energy sector. Steam generating units that currently are coal-fired would be able to remain primarily coal-fired. The replacement of some coal

with natural gas as fuel in these sources would not have significant adverse effects on the price of natural gas or the price of electricity.

iv. Extent of Reductions in CO<sub>2</sub> Emissions

One of the primary benefits of natural gas co-firing is emission reduction. CO<sub>2</sub> emissions are reduced by approximately 4 percent for every additional 10 percent of co-firing. When shifting from 100 percent coal to 60 percent coal and 40 percent natural gas, CO<sub>2</sub> stack emissions are reduced by approximately 16 percent. Non-CO<sub>2</sub> emissions are reduced as well, as noted earlier in this preamble.

## v. Technology Advancement

Natural gas co-firing is already well-established and widely used by coal-fired steam boiler generating units. As a result, this proposed rule is not likely to lead to technological advances or cost reductions in the components of natural gas co-firing, including modifications to boilers and pipeline construction. However, greater use of natural gas co-firing may lead to improvements in the efficiency of conducting natural gas co-firing and operating the associated equipment.

## c. Conclusion

The EPA proposes that natural gas co-firing at 40 percent of heat input is the BSER for medium-term coal-fired steam generating units because natural gas co-firing is adequately demonstrated, as indicated by the facts that it has been operated at scale and is widely applicable to sources. Additionally, the costs for natural gas co-firing are reasonable. Moreover, any adverse non-air quality health and environmental impacts and energy requirements of natural gas co-firing are limited and are outweighed by the benefits of the emission reductions at reasonable cost. In contrast, CCS, although achieving greater emission reductions, would be less cost-effective, in general, for the proposed subcategory of medium-term units.

While the EPA is not proposing CCS as BSER for the proposed subcategory definition of medium-term units, the EPA is taking comment on the operating horizons that define the threshold date between medium-term and long-term units (*i.e.*, between 8 and 10 years, instead of the proposed 10-year operating horizon) and on what amount of costs should be considered reasonable.

<sup>558</sup> Pipeline Safety: Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments (87 FR 52224; August 24, 2022).

<sup>559</sup> Pipeline Safety: Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments (84 FR 52180; October 1, 2019).

<sup>560</sup> Pipeline Safety: Safety of Gas Gathering Pipelines: Extension of Reporting Requirements, Regulation of Large, High-Pressure Lines, and Other Related Amendments (86 FR 63266; November 15, 2021).

### 3. Imminent-Term and Near-Term Coal-Fired Steam Generating Units

In this section of the preamble, the EPA evaluates CCS, natural gas co-firing, low levels of natural gas co-firing, and routine methods of operation and maintenance as the BSER for imminent-term and near-term coal-fired steam generating units. Primarily because of the effect of a short operating horizon on the cost of controls for these units, the EPA proposes routine methods of operation and maintenance as the BSER.

#### a. CCS

As noted in section X.D.2.a of this preamble, the EPA is not proposing CCS for medium-term units due to \$/MWh costs being less favorable based on the appropriate cost metrics. Because of the shorter operating horizons for imminent-term and near-term coal-fired steam generating units, CCS is less cost favorable for them than for medium-term units. Therefore, the EPA is not proposing CCS as BSER for imminent-term or near-term coal-fired steam generating units. Additional details of cost values for amortization periods representative of imminent-term and near-term units are available in the *GHG Mitigation Measures for Steam Generating Units TSD*.

#### b. Natural Gas Co-Firing

##### i. Natural Gas Co-Firing at 40 Percent

Much of the discussion of natural gas co-firing in section X.D.2.b of this preamble for medium-term units is relevant for imminent-term and near-term units, except that natural gas co-firing is less cost effective for the latter units because of their short operating horizons, particularly on a \$/ton of CO<sub>2</sub> reduced basis. For a 2-year amortization period, annualized costs for the representative unit are \$130/ton of CO<sub>2</sub> reduced and \$23/MWh of generation. Therefore, the EPA is not proposing natural gas co-firing as BSER for imminent-term or near-term units. Additional details of cost are available in the *GHG Mitigation Measures for Steam Generating Units TSD*.

##### ii. Natural Gas Co-Firing at Low Levels of Heat Input

Although higher levels of natural gas co-firing may be less cost effective for imminent-term and near-term units, it is possible that lower levels of natural gas co-firing may be cost reasonable. Many units have demonstrated the ability to co-fire with natural gas over short periods of time and operating with those same levels of natural gas co-firing over longer periods of time (*i.e.*, annually) may achieve emission reductions. A low

level of natural gas co-firing (up to 10 percent of annual heat input) is adequately demonstrated and may be broadly achievable, may achieve reductions in GHG emissions, may be of reasonable cost, and is unlikely to cause unreasonable adverse non-air quality health and environmental impacts or result in substantial energy requirements. Therefore, the EPA is soliciting comment on low levels of natural gas co-firing as a potential component of the BSER for imminent-term and near-term coal-fired steam generating units.

The EPA recognizes that different coal-fired units may be already capable of different natural gas co-firing rates (as discussed in section X.D.2.b.i of this preamble) and is therefore soliciting comment on defining a potential BSER on the basis of the maximum hourly heat input of natural gas fired in the unit (MMBtu/hr) relative to the maximum hourly heat input the unit is capable of (*i.e.*, the nameplate capacity on an MMBtu/hr basis). Alternatively, the EPA is soliciting comment on a fixed value of annual heat input percentage that represents a low level of natural gas co-firing, as well as the definition of a low level of natural gas co-firing that is based on the characteristics of an existing facility (*e.g.*, the capacity of the existing pipeline). The EPA is also soliciting comment on a degree of emission limitation resulting from low levels of natural gas co-firing, as detailed in section X.D.4.c of this preamble.

##### (1) Adequately Demonstrated

For many of the same reasons stated in section X.D.2.b.i of this preamble for natural gas co-firing at higher levels, natural gas co-firing at low levels is adequately demonstrated. The EPA also identified that 369 of the 565 EGUs operating at the end of 2021 have either reported natural gas as a fuel source, are located at a plant with a natural gas generator, and/or are located at a plant with a natural gas pipeline connection. A large percentage of the existing fleet of coal-fired steam generating units would therefore likely be able to co-fire natural gas at low levels without having to make boiler modifications or build additional pipelines.

##### (2) Costs

The costs of low levels of natural gas co-firing may be reasonable because low levels of natural gas co-firing likely require little, if any, capital investment. Additionally, the relatively small increase in natural gas fuel use would only result in a modest increase in total fuel cost.

##### (3) Non-Air Quality Health and Environmental Impact and Energy Requirements

For many of the same reasons stated in section X.D.2.b.iii of this preamble, low levels of natural gas co-firing are unlikely to cause unreasonable adverse non-air quality health and environmental impacts or result in substantial energy requirements. Furthermore, low levels of natural gas co-firing may require only limited construction of additional infrastructure as existing pipeline laterals to the units should be of sufficient size to achieve low levels of natural gas co-firing.

##### (4) Extent of Reductions in CO<sub>2</sub> Emissions

The emission reductions achieved at the unit from low levels of natural gas co-firing of 1 to 10 percent may be relatively low at around 0.4 to 4 percent, respectively. However, these are likely on average greater than the emission reductions that could be achievable by other technologies, such as HRI. Furthermore, because the efficiency of the unit is not increased as with HRI, the unit likely does not move up in dispatch order, and it is likely the unit would not be subject to the rebound effect. See section X.D.5 of this preamble for a discussion of HRI.

##### (5) Technology Advancement

Low levels of natural gas co-firing do not advance useful control technology, for reasons similar to those discussed in section X.D.2.b.v of this preamble.

#### c. Routine Methods of Operation and Maintenance

For the imminent-term and near-term coal-fired steam generating units, the EPA is proposing that the BSER is routine methods of operation and maintenance already occurring at the unit, so as to maintain the current unit-specific CO<sub>2</sub> emission rates (expressed as lb CO<sub>2</sub>/MWh).

Routine methods of operation and maintenance are adequately demonstrated because units already operate by those methods. They will not result in additional costs from any controls, and will not create adverse non-air quality health and environmental impacts or energy requirements. They will not achieve CO<sub>2</sub> emission reductions at the unit level relative to current performance, but they can prevent worsening of emission rates over time. Although they do not advance useful control technology, they do not have adverse impacts on the energy sector from a nationwide or long-term perspective.



#### 4. Degree of Emission Limitation

Under CAA section 111(d), once the EPA determines the BSER, it must determine the “degree of emission limitation” achievable by the application of the BSER. States then determine standards of performance and include them in the State plans, based on the specified degree of emission limitation. Proposed presumptive standards of performance are detailed in section XII.D of this preamble. There is substantial variation in emission rates among coal-fired steam generating units—the range is, approximately, from 1,700 lb CO<sub>2</sub>/MWh-gross to 2,500 lb CO<sub>2</sub>/MWh-gross—which makes it challenging to determine a single, uniform emission limit. Accordingly, for each of the four subcategories of coal-fired steam generating units, the EPA is proposing to determine the degree of emission limitation by a percentage change in emission rate, as follows:

##### a. Long-Term Coal-Fired Steam Generating Units

As discussed earlier in this preamble, the EPA is proposing the BSER for long-term coal-fired steam generating units as “full-capture” CCS, defined as 90 percent capture of the CO<sub>2</sub> in the flue gas. The degree of emission limitation achievable by applying this BSER can be determined on a rate basis. A capture rate of 90 percent results in reductions in the emission rate of 88.4 percent on a lb CO<sub>2</sub>/MWh-gross basis, and this reduction in emission rate can be observed over an extended period (*e.g.*, an annual calendar-year basis). Therefore, the EPA is proposing that the degree of emission limitation for long-term units is an 88.4 percent reduction in emission rate on a lb CO<sub>2</sub>/MWh-gross basis over an extended period (*e.g.*, an annual calendar-year basis).

As noted in section X.D.1.a of this preamble, new CO<sub>2</sub> capture retrofits on existing coal-fired steam generating units may achieve capture rates greater than 90 percent, and the EPA is taking comment on a range of capture rates that may be achievable. As noted in section VII.F.3.b.iii(A)(2) of this preamble, the operating availability (*i.e.*, the amount of time a process operates relative to the amount of time it planned to operate) of industrial processes is usually less than 100 percent. Assuming that CO<sub>2</sub> capture achieves 90 percent capture when available to operate, that CCS is available to operate 90 percent of the time the coal-fired steam generating unit is operating, and that the steam generating unit operates the same whether or not CCS is available to operate, total emission reductions

would be 81 percent. Higher levels of emission reduction could occur for higher capture rates coupled with higher levels of operating availability relative to operation of the steam generating unit. If the steam generating unit were not permitted to operate when CCS was unavailable, there may be local reliability consequences, and the EPA is soliciting comment on how to balance these issues. Additionally, the EPA is soliciting comment on a range of the degree of emission limitation achievable, in the form of a reduction in emission rate of 75 to 90 percent when determined over an extended period (*e.g.*, an annual calendar-year basis).

##### b. Medium-Term Coal-Fired Steam Generating Units

As discussed earlier in this preamble, the BSER for medium-term coal-fired steam generating units is 40 percent natural gas co-firing. The application of 40 percent natural gas co-firing results in reductions in the emission rate of 16 percent. Therefore, the degree of emission limitation for these units is a 16 percent reduction in emission rate on a lb CO<sub>2</sub>/MWh-gross basis over an extended period (*e.g.*, an annual calendar-year basis).

##### c. Imminent-Term and Near-Term Coal-Fired Steam Generating Units

As discussed above, the BSER for imminent-term and near-term coal-fired steam generating units is routine methods of operation and maintenance. Application of this BSER results in no increase in emission rate. Thus, the degree of emission limitation corresponding to the application of the BSER is no increase in emission rate on a lb CO<sub>2</sub>/MWh-gross basis over an extended period (*e.g.*, an annual calendar-year basis).

Because the EPA is soliciting comment on low levels of natural gas co-firing as a potential BSER for imminent-term and near-term units, the EPA is also soliciting comment on the degree of emission limitation that may be achievable by application of low levels of natural gas co-firing. The EPA is soliciting comment on degrees of emission limitation defined by reductions in emission rate on a lb CO<sub>2</sub>/MWh-gross basis that are equal to the percent of heat input times 0.4, the percent of reduction in emission rate that may be achieved for each percent of natural gas heat input. For example, for natural gas co-firing at 1 to 10 percent, this results in a degree of emission limitation of 0.4 to 4 percent reduction in emission rate on a lb CO<sub>2</sub>/MWh-gross basis (over an extended period of time). More specifically, the

EPA solicits comment on the degree of emission limitation based on the calculation method defined in the preceding text up to a 4 percent reduction in emission rate (lb CO<sub>2</sub>/MWh-gross) over an extended period of time. Alternatively, as the EPA is also soliciting comment on a fixed percent of low levels of natural gas co-firing, the EPA is additionally soliciting comment on a fixed degree of emission limitation based on the same calculation method. Because the reductions in GHG emissions from low levels of natural gas co-firing are relatively low and may be challenging to measure, the EPA is also soliciting comment on a degree of emission limitation defined on a percent of heat input basis, although the EPA also recognizes that measurement of fuel flow may also have challenges.

#### 5. Other Emission Reduction Measures

##### a. Heat Rate Improvements

Heat rate is a measure of efficiency that is commonly used in the power sector. The heat rate is the amount of energy input, measured in Btu, required to generate one kWh of electricity. The lower an EGU's heat rate, the more efficiently it operates. As a result, an EGU with a lower heat rate will consume less fuel and emit lower amounts of CO<sub>2</sub> and other air pollutants per kWh generated as compared to a less efficient unit. HRI measures include a variety of technology upgrades and operating practices that may achieve CO<sub>2</sub> emission rate reductions of 0.1 to 5 percent for individual EGUs. The EPA considered HRI to be part of the BSER in the CPP and to be the BSER in the ACE Rule. However, the reductions that may be achieved by HRI are small relative to the reductions from natural gas co-firing and CCS. Also, some facilities that apply HRI would, as a result of their increased efficiency, increase their utilization and therefore increase their CO<sub>2</sub> emissions (as well as emissions of other air pollutants), a phenomenon that the EPA has termed the “rebound effect.” Therefore, the EPA is not proposing HRI as a part of BSER.

##### i. CO<sub>2</sub> Reductions From HRI in Prior Rulemakings

In the CPP, the EPA quantified emission reductions achievable through heat rate improvements on a regional basis by an analysis of historical emission rate data, taking into consideration operating load and ambient temperature. The Agency concluded that EGUs can achieve on average a 4.3 percent improvement in the Eastern Interconnection, a 2.1

percent improvement in the Western Interconnection, and a 2.3 percent improvement in the Texas Interconnection. See 80 FR 64789 (October 23, 2015). The Agency then applied all three of the building blocks to 2012 baseline data and quantified, in the form of CO<sub>2</sub> emission rates, the reductions achievable in each interconnection in 2030, and then selected the least stringent as a national performance rate. *Id.* at 64811–19. The EPA noted that building block 1 measures could not by themselves constitute the BSER because the quantity of emission reductions achieved would be too small and because of the potential for an increase in emissions due to increased utilization (*i.e.*, the “rebound effect”).

A description of the ACE Rule is detailed in section IX of this preamble.

ii. Updated CO<sub>2</sub> Reductions From HRI

The HRI measures include improvements to the boiler island (*e.g.*, neural network system, intelligent sootblower system), improvements to the steam turbine (*e.g.*, turbine overhaul and upgrade), and other equipment upgrades (*e.g.*, variable frequency drives). Some regular practices that may recover degradation in heat rate to recent levels—but that do not result in upgrades in heat rate over recent design levels and are therefore not HRI measures—include practices such as in-kind replacements and regular surface cleaning (*e.g.*, descaling, fouling removal). Specific details of the HRI measures are described in the *GHG Mitigation Measures for Steam Generating Units TSD* and an updated 2023 Sargent and Lundy HRI report (*Heat Rate Improvement Method Costs and Limitations Memo*), available in the docket. Most HRI upgrade measures achieve reductions in heat rate of less than 1 percent. In general, the 2023 Sargent and Lundy HRI report, which updates the 2009 Sargent and Lundy HRI report, shows that HRI achieve less reductions than indicated in the 2009 report, and shows that several HRI either have limited applicability or have already been applied at many units. Steam path overhaul and upgrade may achieve reductions up to 5.15 percent, with the average being around 1.5 percent. Different combinations of HRI measures do not necessarily result in cumulative reductions in emission rate (*e.g.*, intelligent sootblowing systems combined with neural network systems). Some of the HRI measures (*e.g.*, variable frequency drives) only impact heat rate on a net generation basis by reducing the parasitic load on the unit and would thereby not be

observable for emission rates measured on a gross basis. Assuming many of the HRI measures could be applied to the same unit, adding together the upper range of some of the HRI percentages could yield an emission rate reduction of around 5 percent. However, the reductions that the fleet could achieve on average are likely much smaller. As noted, the 2023 Sargent and Lundy HRI report notes that, in many cases, units have already applied HRI upgrades or that those upgrades would not be applicable to all units. The unit level reductions in emission rate from HRI are small relative to CCS or natural gas co-firing. In the CPP and ACE Rule, the EPA viewed CCS and natural gas co-firing as too costly to qualify as the BSER; those costs have fallen since those rules and, as a result, CCS and natural gas co-firing do qualify as the BSER for the long-term and medium-term subcategories, respectively.

iii. Potential for Rebound in CO<sub>2</sub> Emissions

Reductions achieved on a rate basis from HRI may not result in overall emission reductions and could instead cause a “rebound effect” from increased utilization. A rebound effect would occur where, because of an improvement in its heat rate, a steam generating unit experiences a reduction in variable operating costs that makes the unit more competitive relative to other EGUs and consequently raises the unit’s output. The increase in the unit’s CO<sub>2</sub> emissions associated with the increase in output would offset the reduction in the unit’s CO<sub>2</sub> emissions caused by the decrease in its heat rate and rate of CO<sub>2</sub> emissions per unit of output. The extent of the offset would depend on the extent to which the unit’s generation increased. The CPP did not consider HRI to be BSER on its own, in part because of the potential for a rebound effect. Analysis for the ACE Rule, where HRI was the entire BSER, observed a rebound effect for certain sources in some cases. In this action, where different subcategories of units are proposed to be subject to different BSER measures, steam generating units in a hypothetical subcategory with HRI as BSER could experience a rebound effect. Because of this potential for perverse GHG emission outcomes resulting from deployment of HRI at certain steam generating units, coupled with the relatively minor overall GHG emission reductions that would be expected from this measure, the EPA is not proposing HRI as the BSER for any subcategory of existing coal-fired steam generating units.

*E. Natural Gas-Fired and Oil-Fired Steam Generating Units*

In this section of the preamble, the EPA is addressing natural gas- and oil-fired steam generating units. The EPA is proposing the BSER and degree of emission limitation achievable by application of the BSER for those units and identifying the associated emission rates that States may apply to these units. For the reasons described here, the EPA is proposing subcategories based on load level (*i.e.*, annual capacity factor), specifically, units that are base load, intermediate load, and low load. At this time, the EPA is not proposing requirements for low load units but is taking comment on a BSER of lower emitting fuels for those units. The EPA is proposing routine methods of operation and maintenance as BSER for intermediate and base load units. Applying that BSER would not achieve emission reductions but would prevent increases in emission rates. The EPA is proposing presumptive standards of performance that differ between intermediate and base load units due to their differences in operation, as detailed in section XII.D.1.b.v of this preamble. The EPA is also proposing a separate subcategory for non-continental oil-fired steam generating units, which operate differently from continental units, with presumptive standards of performance detailed in section XII.D.1.b.vi of this preamble.

Natural gas- and oil-fired steam generating units combust natural gas or distillate fuel oil or residual fuel oil in a boiler to produce steam for a turbine that drives a generator to create electricity. In non-continental areas, existing natural gas- and oil-fired steam generating units may provide base load power, but in the continental U.S., most existing units operate in a load-following manner. There are approximately 200 natural gas-fired steam generating units and fewer than 30 oil-fired steam generating units in operation in the continental U.S. Fuel costs and inefficiency relative to other technologies (*e.g.*, combustion turbines) result in operation at lower annual capacity factors for most units. Based on data reported to EIA and CAMD for the contiguous U.S., for natural gas-fired steam generating units in 2019, the average annual capacity factor was less than 15 percent and 90 percent of units had annual capacity factors less than 35 percent. For oil-fired steam generating units in 2019, no units had annual capacity factors above 8 percent. Additionally, their load-following method of operation results in frequent cycling and a greater proportion of time

spent at low hourly capacities, when generation is less efficient. Furthermore, because startup times for most boilers are usually long, natural gas steam generating units may operate in standby mode between periods of peak demand. Operating in standby mode requires combusting fuel to keep the boiler warm, and this further reduces the efficiency of natural gas combustion.

Unlike coal-fired steam generating units, the CO<sub>2</sub> emission rates of oil- and natural gas-fired steam generating units that have similar annual capacity factors do not vary considerably between units. This is partly due to the more uniform qualities (e.g., carbon content) of the fuel used. However, the emission rates for units that have different annual capacity factors do vary considerably, as detailed in the *Natural Gas- and Oil-fired Steam Generating Unit* TSD. Low annual capacity factor units cycle frequently, have a greater proportion of CO<sub>2</sub> emissions that may be attributed to startup, and have a greater proportion of generation at inefficient hourly capacities. Intermediate annual capacity factor units operate more often at higher hourly capacities, where CO<sub>2</sub> emission rates are lower. High annual capacity factor units operate still more at base load conditions, where units are more efficient and CO<sub>2</sub> emission rates are lower. Based on these performance differences between these load levels, the EPA is, in general, proposing to divide natural gas- and oil-fired steam generating units into three subcategories each—low load, intermediate load, and base load—as specified in section X.C.2 of this preamble: “low” load is defined by annual capacity factors less than 8 percent, “intermediate” load is defined by annual capacity factors greater than or equal to 8 percent and less than 45 percent, and “base” load is defined by annual capacity factors greater than 45 percent.

#### 1. Options Considered for BSER

The EPA has considered various methods for controlling CO<sub>2</sub> emissions from natural gas- and oil-fired steam generating units to determine whether they meet the criteria for BSER. Co-firing natural gas cannot be the BSER for these units because natural gas- and oil-fired steam generating units already fire large proportions of natural gas. Most natural gas-fired steam generating units fire more than 90 percent natural gas on a heat input basis, and any oil-fired steam generating units that would potentially operate above an annual capacity factor of around 15 percent would combust natural gas as a large proportion of their fuel as well. Nor is CCS a candidate for BSER. The

utilization of most gas-fired units, and likely all oil-fired units, is relatively low, and as a result, the amount of CO<sub>2</sub> available to be captured is low. However, the capture equipment would still need to be sized for the nameplate capacity of the unit. Therefore, the capital and operating costs of CCS would be high relative to the amount of CO<sub>2</sub> available to be captured. Additionally, again due to lower utilization, the amount of IRC section 45Q tax credits that owner/operators could claim would be low. Because of the relatively high costs and the relatively low cumulative emission reduction potential for these natural gas- and oil-fired steam generating units, the EPA is not proposing CCS as the BSER for them.

The EPA has reviewed other possible controls but is not proposing any of them as the BSER for natural gas- and oil-fired units either. Co-firing hydrogen in a boiler is technically possible, but, for the same reasons discussed in section VII of this preamble, the only hydrogen that could be considered for the BSER would be low-GHG hydrogen, and there is limited availability of that hydrogen now and in the near future. Additionally, for natural gas-fired steam generating units, setting a future standard based on hydrogen would have limited GHG reduction benefits given the low utilization of natural gas- and oil-fired steam generating units. Lastly, HRI for these types of units would face many of the same issues as for coal-fired steam generating units; in particular, HRI could result in a rebound effect that would increase emissions.

However, the EPA recognizes that natural gas- and oil-fired steam generating units could possibly, over time, operate more, in response to other changes in the power sector. Additionally, some coal-fired steam generating units have converted to 100 percent natural gas-fired, and it is possible that more may do so in the future. Moreover, in part because the fleet continues to age, the plants may operate with degrading emission rates. In light of these possibilities, identifying the BSER and degrees of emission limitation for these sources would be useful to provide clarity and prevent backsliding in GHG performance. Therefore, the EPA is proposing BSER for intermediate and base load natural gas- and oil-fired steam generating units to be routine methods of operation and maintenance, such that the sources could maintain the emission rates (on a lb/MWh-gross basis) currently maintained by the majority of the fleet across discrete ranges of annual capacity factor. The EPA is proposing this BSER

for intermediate load and base load natural gas- and oil-fired steam generating units, regardless of the operating horizon of the unit.

A BSER based on routine methods of operation and maintenance is adequately demonstrated because units already operate with those practices. There are no or negligible additional costs because there is no additional technology that units are required to apply and there is no change in operation or maintenance that units must perform. Similarly, there are no adverse non-air quality health and environmental impacts or adverse impacts on energy requirements. Nor do they have adverse impacts on the energy sector from a nationwide or long-term perspective. The EPA’s initial modeling, which supports this proposed rule, indicates that by 2040, a number of natural gas-fired steam generating units have remained in operation since 2030, although at reduced annual capacity factors. There are no CO<sub>2</sub> reductions that may be achieved at the unit level, but applying the BSER should preclude increases in emission rates. Routine methods of operation and maintenance do not advance useful control technology, but this point is not significant enough to offset their benefits.

The EPA is also taking comment on, but not proposing, a BSER of lower emitting fuels for low load natural gas- and oil-fired steam generating units. As noted earlier in this preamble, non-coal fossil fuels combusted in utility boilers typically include natural gas, distillate fuel oil (i.e., fuel oil No. 1 and No. 2), and residual fuel oil (i.e., fuel oil No. 5 and No. 6). The EPA previously established heat-input based fuel composition as BSER in the 2015 NSPS (termed “clean fuels” in that rulemaking) for new non-base load natural gas- and multi-fuel-fired stationary combustion turbines (80 FR 64615–17; October 23, 2015), and the EPA is similarly proposing lower emitting fuels as BSER for new low load combustion turbines as described in section VII of this preamble. For low load natural gas- and oil-fired steam generating units, the high variability in emission rates associated with the variability of load at the lower-load levels limits the benefits of a BSER based on routine maintenance and operation. That is because the high variability in emission rates would make it challenging to determine an emission rate (i.e., on a lb CO<sub>2</sub>/MWh-gross basis) that could serve as the presumptive standard of performance that would reflect application of a BSER of routine operation and maintenance.

On the other hand, for those units, a BSER of “uniform fuels” and an associated presumptive standard of performance based on a heat input basis, as described in section XII.D of this preamble, may be reasonable. The EPA is soliciting comment on the fuel types that would constitute “uniform fuels” specific to low load natural gas- and oil-fired steam generating units.

2. Degree of Emission Limitation

As discussed above, because the proposed BSER for base load and intermediate load natural gas- and oil-fired steam generating plants is routine operation and maintenance, which the units are, by definition, already employing, the degree of emission limitation by application of this BSER is no increase in emission rate on a lb CO<sub>2</sub>/MWh-gross basis over an extended period of time (e.g., an annual calendar year).

F. Summary

The EPA has evaluated options for BSER for GHG emissions for fossil fuel-fired steam generating units. The EPA is proposing subcategorization of steam generating units by the type of fossil fuel fired in the unit, and, for each fuel type, further levels of subcategorization. For each subcategory, the EPA is proposing a BSER and resulting degree of emission limitation achievable by application of that BSER, as summarized in table 5, with presumptively approvable standards of performance for use in State plan development (see section XII of this preamble for details) included for completeness. For coal-fired steam generating units that plan to operate in the long-term, the EPA is proposing a BSER of CCS with 90 percent capture of CO<sub>2</sub>. In response to industry stakeholder input and recognizing that the cost effectiveness of controls depends on a unit’s expected operating time horizon, which dictates the amortization period

for the capital costs of the controls, the EPA is proposing other BSER for coal-fired units with shorter operating horizons while taking comment on what dates most appropriately define the thresholds between these different subcategories. For the different subcategories of natural gas- and oil-fired units, the EPA is proposing BSERs based on routine methods of operation and maintenance. The EPA solicits comment on the proposed BSER and degrees of emission limitation, as well as the proposed subcategorization, including the potential to remove the imminent-term subcategory and include units with earlier commitments to permanently cease operations in either the near-term or medium-term subcategory. It is noted that for imminent-term and near-term coal-fired steam generating units, the EPA is also soliciting comment on potential BSERs based on co-firing low levels of natural gas.

TABLE 5—SUMMARY OF PROPOSED BSER, SUBCATEGORIES, AND DEGREES OF EMISSION LIMITATION FOR AFFECTED EGUS

Affected EGUs	Subcategory definition	BSER	Degree of emission limitation	Presumptively approvable standard of performance <sup>561</sup>	Ranges in values on which the EPA is soliciting comment
Long-term existing coal-fired steam generating units.	Coal-fired steam generating units that have not elected to commit to permanently cease operations by January 1, 2040.	CCS with 90 percent capture of CO <sub>2</sub> .	88.4 percent reduction in emission rate (lb CO <sub>2</sub> /MWh-gross).	88.4 percent reduction in annual emission rate (lb CO <sub>2</sub> /MWh-gross) from the unit-specific baseline.	The achievable capture rate from 90 to 95 percent or greater and the achievable degree of emission limitation defined by a reduction in emission rate from 75 to 90 percent.
Medium-term existing coal-fired steam generating units.	Coal-fired steam generating units that have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2040, and that are not near-term units.	Natural gas co-firing at 40 percent of the heat input to the unit.	A 16 percent reduction in emission rate (lb CO <sub>2</sub> /MWh-gross).	A 16 percent reduction in annual emission rate (lb CO <sub>2</sub> /MWh-gross) from the unit-specific baseline.	The percent of natural gas co-firing from 30 to 50 percent and the degree of emission limitation from 12 to 20 percent.
Near-term existing coal-fired steam generating units.	Coal-fired steam generating units that have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2035, and commit to adopt an annual capacity factor limit of 20 percent.	Routine methods of operation.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An emission rate limit (lb CO <sub>2</sub> /MWh-gross) defined by the unit-specific baseline.	The presumptive standard: 0 to 2 standard deviations in annual emission rate above or 0 to 10 percent above the unit-specific baseline.
Imminent-term existing coal-fired steam generating units.	Coal-fired steam generating units that have elected to commit to permanently cease operations before January 1, 2032.	Routine methods of operation.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An emission rate limit (lb CO <sub>2</sub> /MWh-gross) defined by the unit-specific baseline.	The presumptive standard: 0 to 2 standard deviations in annual emission rate above or 0 to 10 percent above the unit-specific baseline.

<sup>561</sup> Presumptive standards of performance are discussed in detail in section XII of the preamble. While States establish standards of performance for

sources the EPA provides presumptively approvable standards of performance based on the degree of emission limitation achievable through

application of the BSER for each subcategory. Inclusion in this table is for completeness.

TABLE 5—SUMMARY OF PROPOSED BSER, SUBCATEGORIES, AND DEGREES OF EMISSION LIMITATION FOR AFFECTED EGUS—Continued

Affected EGUs	Subcategory definition	BSER	Degree of emission limitation	Presumptively approvable standard of performance <sup>561</sup>	Ranges in values on which the EPA is soliciting comment
Base load continental existing oil-fired steam generating units.	Oil-fired steam generating units with an annual capacity factor greater than or equal to 45 percent.	Routine methods of operation and maintenance.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An annual emission rate limit of 1,300 lb CO <sub>2</sub> /MWh-gross.	The threshold between intermediate and base load from 40 to 50 percent annual capacity factor; the degree of emission limitation from 1,250 lb CO <sub>2</sub> /MWh-gross to 1,800 lb CO <sub>2</sub> /MWh-gross.
Intermediate load continental existing oil-fired steam generating units.	Oil-fired steam generating units with an annual capacity factor greater than or equal to 8 percent and less than 45 percent.	Routine methods of operation and maintenance.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An annual emission rate limit of 1,500 lb CO <sub>2</sub> /MWh-gross.	The degree of emission limitation from 1,400 lb CO <sub>2</sub> /MWh-gross to 2,000 lb CO <sub>2</sub> /MWh-gross.
Low load (continental and non-continental) existing oil-fired steam generating units.	Oil-fired steam generating units with an annual capacity factor less than 8 percent.	None proposed .....	.....	.....	The threshold between low and intermediate load from 5 to 20 percent annual capacity factor.
Intermediate and base load non-continental existing oil-fired steam generating units.	Non-continental oil-fired steam generating units with an annual capacity factor greater than or equal to 8 percent.	Routine methods of operation and maintenance.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An emission rate limit (lb CO <sub>2</sub> /MWh-gross) defined by the unit-specific baseline.	The presumptive standard: 0 to 2 standard deviations in annual emission rate above or 0 to 10 percent above the unit-specific baseline.
Base load existing natural gas-fired steam generating units.	Natural gas-fired steam generating units with an annual capacity factor greater than or equal to 45 percent.	Routine methods of operation and maintenance.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An annual emission rate limit of 1,300 lb CO <sub>2</sub> /MWh-gross.	The threshold between intermediate and base load from 40 to 50 percent annual capacity factor; The acceptable standard from 1,250 lb CO <sub>2</sub> /MWh-gross to 1,400 lb CO <sub>2</sub> /MWh-gross.
Intermediate load existing natural gas-fired steam generating units.	Natural gas-fired steam generating units with an annual capacity factor greater than or equal to 8 percent and less than 45 percent.	Routine methods of operation and maintenance.	No increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	An annual emission rate limit of 1,500 lb CO <sub>2</sub> /MWh-gross.	The acceptable standard from 1,400 lb CO <sub>2</sub> /MWh-gross to 1,600 lb CO <sub>2</sub> /MWh-gross.
Low load existing natural gas-fired steam generating units.	Natural gas-fired steam generating units with an annual capacity factor less than 8 percent.	None proposed .....	.....	.....	The threshold between low and intermediate load from 5 to 20 percent annual capacity factor.

**XI. Proposed Regulatory Approach for Emission Guidelines for Existing Fossil Fuel-fired Stationary Combustion Turbines**

**A. Overview**

Because the EPA has established NSPS for GHG emissions from new fossil fuel-fired stationary combustion turbines under CAA section 111(b), it has an obligation to also establish emission guidelines for GHG emissions from existing fossil-fuel fired stationary combustion turbines under CAA section 111(d). Existing fossil fuel-fired stationary combustion turbines already represent a significant share of GHG emissions from EGUs and are quickly becoming the largest source of GHG emissions from the power sector. As other fossil fuel-fired EGUs reduce utilization or retire, at least some of this

generation may shift to the existing combustion turbine fleet with significant GHG emission implications, particularly if the latter is not subject to limits on GHG emissions. For these reasons, the EPA intends to discharge its obligation to prescribe emission guidelines for these sources as expeditiously as practicable. In this document, the EPA is proposing emission guidelines for certain existing fossil fuel-fired stationary combustion turbines and soliciting comment on approaches that could be used to establish emission guidelines for the remaining units in the fleet.

In considering how to address this problem, the EPA believes there are at least two key factors to consider. The first is that determining the BSER and issuing emission guidelines covering these units sooner rather than later is

important to address the GHG emissions from this growing portion of the inventory. The second is related to the size of the affected fleet and the implications for the feasibility and timing of implementing potential candidates for BSER. As discussed later in this section, there are at least three technologies that could be applied to reduce GHGs from existing combustion turbines (CCS, hydrogen co-firing, and heat rate improvements), all of which are available today and are being pursued to at least some degree by owners and operators of these sources. Although the EPA believes that these technologies are available and adequately demonstrated at the level of individual existing combustion turbines, emission guidelines for these sources must also consider how much of the fleet could reasonably implement

one or more of these potential BSER approaches in a given time frame.

Furthermore, the EPA is aware that grid operators and power companies currently rely on existing fossil fuel-fired combustion turbines as a flexible and readily dispatchable resource that plays a key role in fulfilling resource adequacy and operational reliability needs. Although advancements in energy storage and accelerated development and deployment of zero-emitting resources may diminish reliance on existing fossil fuel-fired combustion turbines for reliability purposes over time, it is imperative that emission guidelines for these sources not impair the reliability of the bulk power system. For these reasons, the EPA believes that it is important that a BSER determination and associated emission guidelines for existing fossil fuel-fired combustion turbines rely on GHG control options that can be feasibly and cost-effectively implemented at a scale commensurate with the size of the regulated fleet, and provide sufficient operational flexibility and lead time to allow for smooth implementation of the GHG emission limitations that preserves system reliability.

Given the large size of the existing combustion turbine fleet and the lead time required to develop CCS and hydrogen-related infrastructure, the EPA believes the BSER for this category entails significant lead time for application of CCS or low-GHG hydrogen co-firing. As a result, the EPA is planning to break the existing combustion turbine category into two segments, and is focusing this proposal on the largest and most frequently operated (e.g., base load) existing combustion turbines that have the highest GHG emissions on an annual basis. For these large and frequently operated existing combustion turbines, the EPA is proposing to determine that the BSER consists of either application of CCS by 2035, or application of low-GHG hydrogen co-firing beginning in 2032, based on an evaluation of the statutory BSER criteria that mirrors EPA's evaluation of the BSER for new base load combustion turbines. This focused approach will limit GHG emissions from the highest-emitting existing natural gas combustion turbines, while allowing sufficient lead time for application of CCS or low-GHG hydrogen co-firing and limiting the amount of affected capacity to a degree that is consistent with the availability of these two GHG mitigation technologies. The EPA intends to undertake a separate rulemaking as expeditiously as practicable that addresses emissions

from the remaining combustion turbines.

In this document, the EPA is soliciting comment on both the scope of these proposed emission guidelines (in other words, the applicability thresholds that would determine which existing combustion turbines are in the first segment) as well as the BSER for units covered in this rulemaking. In section XII of this preamble, the EPA is also taking comment on the associated State plan requirements associated with the BSER for existing fossil fuel-fired turbines.

As described in more detail below, the EPA is proposing to determine that the BSER for large and frequently operated existing stationary combustion turbines is the same as for the proposed second phase of requirements for new base load combustion turbines. Accordingly, the EPA is proposing emission guidelines for these existing stationary combustion turbines that would require either that these sources achieve a degree of emission limitation consistent with the use of CCS by 2035, or achieve a degree of emission limitation reflecting the utilization of 30 percent low-GHG hydrogen by volume by 2032 (increasing to 96 percent low-GHG hydrogen by volume by 2038).

The EPA believes that it is important to stagger CCS requirements for existing coal-fired units and new and existing fossil fuel-fired turbines to allow time for both deployment of CCS infrastructure and to accommodate increased demand for specialized engineering and construction labor needed to build CCS equipment. The EPA also believes that because coal-fired units emit more CO<sub>2</sub>/MWh, that to the extent that there are limitations to the amount of CCS that can be installed by 2030 it makes sense to focus a CCS BSER on those coal-fired units first. A 2035 compliance timeframe would allow for staggering of resources needed to install CCS while still allowing existing turbines to take advantage of the IRC section 45Q tax credits to make CCS controls more cost-effective or to use hydrogen, produced at facilities eligible for the 45V tax credits, making hydrogen co-firing more cost effective.<sup>562</sup> In the rest of this section, the EPA proposes regulations for the first segment and solicits comment on specific elements of the approach. This section also briefly discusses what BSER might look like for units in the second rulemaking, and requests comments that could inform the development of a

<sup>562</sup> CCS projects that commence construction as late as December 31, 2032 can qualify for the 45Q tax credit.

rulemaking defining BSER, degrees of emission limitation, compliance deadlines and other elements of an emission guideline for those units at a later date.

As explained in more detail later in this section, the EPA is proposing that the first segment it would cover would be units greater than 300 MW with an annual capacity factor of greater than 50 percent. The EPA projects that 37 GW of capacity would meet these criteria in 2035, representing 14 percent of the projected existing combustion turbine capacity and 23 percent of the projected generation from existing combustion turbines in 2035. As is explained further below, the EPA is proposing this capacity factor and capacity threshold after weighing the quantity of emissions from these units and considerations about the feasibility of installing significant amounts of CCS and/or hydrogen co-firing. In short, these units offer the best opportunity to achieve significant emissions reduction consistent with what the EPA believes these technologies will be capable of on a national scale. Similar to its proposal for new base load turbines, the EPA is proposing that BSER for those existing sources be both pathways, that is CCS with 90 percent capture in 2035 and clean hydrogen combusting 30 percent by volume in 2032 and 96 percent by volume in 2038. Alternatively, as with the proposal for new base load turbines, the EPA is taking comment on whether to finalize a BSER with a single pathway based on application of CCS with 90 percent capture, which could also be met by co-firing with low-GHG hydrogen as a compliance option, or vice-versa. The EPA is also taking comment on whether the compliance date should begin earlier, including as early as 2030.<sup>563</sup>

The EPA has promulgated several prior rulemakings under both CAA section 111(b) and section 111(d) that provide the regulated sector with lead time to accommodate the time needed to deploy control technology. Section VII.F.3.a of this preamble discusses, in the section 111(b) context, precedent for rulemakings that provide such lead time. For additional examples under CAA section 111(d), see 70 FR 28606, 28619 (May 18, 2005) (establishing emission guidelines for electric utility steam generating units, with a 13-year compliance timeframe for a second control phase); 61 FR 9905, 9919 (March 12, 1996) (establishing emission guidelines for municipal solid waste landfills, with a 2.5-year compliance

<sup>563</sup> If we finalize one of these variations, the state plan requirements may change accordingly.

timeframe); 62 FR 48348, 48381 (September 15, 1997) (establishing emission guidelines for hospital/medical/infectious waste incinerators, with up to 3 years after State plan approval for facilities to install control equipment). Section XI.B provides background information concerning the composition of the current fossil fuel-fired stationary combustion turbine fleet and how it is expected to change in the near future. In section XI.C, the EPA proposes an approach for units covered in this rulemaking and in section XI.D, the EPA summarizes the key topics for which we are soliciting comment relative to existing combustion turbines. Finally, section XI.E, outlines a potential approach for units covered in a second rulemaking

#### *B. The Existing Stationary Combustion Turbine Fleet*

In 2021, existing combustion turbines represented 37 percent of the GHG emissions from the power sector and 40 percent of the generation from the power sector. In the EPA's updated baseline projections for the power sector, they represent 74 percent of the GHG emissions and 25 percent of the generation in 2035. In EPA's modeling of the 2035 control case, in which both existing fossil fuel-fired EGUs and new stationary combustion turbine EGUs are subject to the emissions limitations proposed in this action but existing combustion turbine EGUs are left uncontrolled, load shifting from those two categories of sources to the existing combustion turbines results in an increase in the share of the emissions from existing combustion turbines (including combined cycle and simple cycle combustion turbines) to 82 percent while their share of generation remains 25 percent. Moreover, in that control case, existing combined cycle combustion turbines are responsible for 71 percent of the CO<sub>2</sub> emissions from the power sector.

In the EPA's modeling in support of these rules, we see two trends that are important relative to existing combustion turbines. First, the EPA's analysis of the reference case (which includes the impacts of IRA without considering the GHG limitation requirements proposed in these rules) projects a long-term decline in generation and emissions from existing combustion turbines relative to current

generation and emissions. In this reference case, combined cycle generation falls in each model run year from 2028 through 2050, and it falls by more than 50 percent between 2030 and 2045. Generation from existing simple cycle combustion turbines is projected to peak in 2030 before declining by more than 70 percent by 2045. While generation falls from turbines, this is primarily caused by declining capacity factors, not through retirements.

Historical data shows a wide range of variation in both the heat rate and the GHG emission rates among both existing combined cycle combustion turbines and existing simple cycle combustion turbines. The GHG emission rates for existing combined cycle units range from as low as 644 lb CO<sub>2</sub>/MWh-gross to as high as 1,891 lb CO<sub>2</sub>/MWh-gross, and annual capacity factors range from as low as 1 percent to as high as 85 percent. While there is some correlation between units with low-GHG emission rates (*e.g.*, more efficient units) and utilization, some low efficiency combined cycle units have historically operated at very high capacity factors. For instance, two of the highest operating units (at 85 percent capacity utilization) have GHG emission rates of nearly 1,200 lb/MWh-gross.

#### *C. BSER for Base Load Turbines Over 300 MW*

As noted earlier, the EPA is adopting an approach in which existing combustion turbines would be regulated in two segments. The proposed emission guidelines presented in this document focus on the first segment, which comprises the base load units (*e.g.*, those operated at capacity factors of greater than 50 percent) over 300 MW. The EPA intends to undertake a separate rulemaking to address the second segment, comprising the remainder of the existing fossil fuel-fired stationary combustion fleet, as expeditiously as practicable.

Because the first segment would be focused on the largest most frequently used units, the EPA is proposing that the BSER for these units would be CCS or a BSER based upon burning low-GHG hydrogen. As is the case for new base load combustion turbines, each of these sets of controls is adequately demonstrated, of reasonable cost, and consistent with the other criteria to qualify as the BSER.

Because the second segment would include both smaller more frequently used units and less frequently used units, in that action, the EPA anticipates considering a broader range of technologies including heat rate improvements. This approach recognizes the imperatives (the urgent need to reduce greenhouse gases), the opportunities (including the availability of IRC section 45Q tax credits incentivizing CCS installation as long as sources commence construction by January 1, 2033), and the need for infrastructure for CCS and co-firing low-GHG hydrogen to be deployed at a broader scale if these BSER technologies are to be deployed broadly at smaller and less frequently operated existing combustion turbines.

The EPA is proposing emission guidelines for units with a capacity factor greater than 50 percent and a capacity of greater than 300 MW, but is also taking comment on whether that capacity factor threshold or capacity threshold should be lower (for instance 40 percent for the capacity factor and 200 MW or 100 MW for the capacity). The EPA is proposing that 300 MW is the appropriate threshold for applicability because it focuses on the units with the highest emissions where CCS is likely to be most cost effective. As an important first step towards abating emissions from the existing turbine fleet and recognizing that at least some project developers are considering the use of clean hydrogen in base load turbines<sup>564</sup> and recognizing that there are likely limits to the clean hydrogen supply in the mid-term, the EPA believes that it is appropriate to also propose a clean hydrogen BSER for the same set of units. Table 6 provides information from IPM detailing the amount of capacity and generation from the 2035 IPM projected control case that would be covered under various capacity thresholds.

<sup>564</sup> As one developer notes, "the plant will be capable of supporting a balanced and diverse power generation portfolio in the future; from energy storage capable of accommodating seasonal fluctuations from renewable energy, to cost effective, dispatchable intermediate and baseload power." <https://www.longridgeenergy.com/news/2020-10-13-long-ridge-energy-terminal-partners-with-new-fortress-energy-and-ge-to-transition-power-plant-to-zero-carbon-hydrogen>.



TABLE 6—KEY CHARACTERISTICS FOR BASELOAD COMBINED CYCLE UNITS OF VARIOUS CAPACITIES

NGCC units projected to run at a capacity factor of greater than 50 percent and at a capacity size greater than	Capacity (GW)	Percentage of total NGCC capacity (%)	Percentage of total NGCC generation (%)
100 MW .....	134	49	78
200 MW .....	85	31	51
300 MW .....	37	14	23
400 MW .....	12	4	10
500 MW .....	6	2	7

The EPA believes this approach would ensure that GHG emissions limitations are implemented first at the subset of existing fossil fuel-fired combustion turbines that contributes the most to GHG emissions, and where the benefits of implementing GHG controls would be greatest.

The EPA believes there are three sets of controls that could potentially qualify as the BSER for the group of large and frequently-operated combustion turbines covered in the first rulemaking. Those controls are heat rate/efficiency improvements, co-firing low-GHG hydrogen, and use of CCS. We discuss each of these below, and in the course of each discussion explain why we are proposing that the following controls qualify as the BSER: co-firing with low-GHG hydrogen in the amounts of 30 percent (by volume) by 2032 and 96 percent (by volume) by 2038, and the use of CCS with 90 percent capture by 2035.

#### 1. Heat-Rate Improvements

The EPA believes that heat rate improvements for existing combustion turbines are broadly applicable today. Heat rate/efficiency improvements can be divided into two types. The first type involves smaller scale improvements to existing combustion turbines. The second type involves more comprehensive upgrades of the combustion turbines.

Smaller scale efficiency improvements can include measures such as inlet fogging and inlet cooling. Both of these techniques can achieve about 2 percent improvements in heat rate. Inlet chilling costs approximately \$19/kW and is also accompanied by a capacity increase of 11 percent. Inlet fogging is approximately \$0.93/kW and is accompanied by a capacity increase of 6 percent.<sup>565</sup> These small-scale efficiency improvements would likely result in an average 2 percent

improvement in the heat rate of affected existing combustion turbines.

More comprehensive efficiency upgrades to combustion turbines are also possible. An upgrade to the combustion turbine can result in a heat rate improvement of 3.0 percent and a capacity increase of 13 percent for \$172/kW, while an upgrade to the steam turbine can result in a heat rate improvement of 3.2 percent with a capacity increase of 3 percent for \$130/kW. These more comprehensive efficiency improvements would likely result in an average efficiency improvement of 6 percent for affected existing stationary combustion turbines. The EPA is not proposing HRI improvements for units greater than 300 MW because they achieve significantly less emission reductions than either CCS or co-firing hydrogen, but believes that some units may choose to make these upgrades as part of their response to installing CCS and/or co-firing hydrogen. The EPA is taking comment on whether HRI should be considered BSER (or a component of BSER) for combined cycle units with a capacity factor of greater than 50 percent and a capacity of less than 300 MW as part of this initial rulemaking.

#### 2. Co-Firing Low-GHG Hydrogen

##### a. Overview

The EPA is proposing that for existing combined cycle combustion turbines that operate at capacity factors of greater than 50 percent and that are greater than 300 MW, co-firing 30 percent low-GHG hydrogen by 2032 and 96 percent by 2038 qualifies as the BSER, for largely the same reasons that apply to new combined cycle turbines, as discussed in section VII.F.3.c.vii of this preamble. Co-firing hydrogen at these levels is adequately demonstrated, as indicated by announced plans of manufacturers and generators to undertake retrofit projects for hydrogen co-firing. These plans also indicate that the costs of retrofitting are reasonable. The analysis concerning the costs of low-GHG hydrogen for existing turbines is

comparable to the analysis for new turbines. See section VII.F.3.c.vii.(B) of this preamble. Co-firing with low-GHG hydrogen at existing turbines also has comparable non-air quality environmental impacts and energy requirements, and comparable emissions reductions as co-firing with low-GHG hydrogen at new turbines. See sections VII.F.3.c.vii.(C)–(D) of this preamble. For these reasons, the EPA is proposing that co-firing with low-GHG hydrogen qualifies as the BSER. The fact that doing so will also advance the development and deployment of this low-emitting technology further supports this proposal.

##### b. Adequately Demonstrated

Co-firing with low-GHG hydrogen is feasible in combustion turbines that are currently being produced. Manufacturers have developed retrofits to allow existing combustion turbines to combust up to 100 percent hydrogen, and some companies have announced plans to retrofit their existing turbines to combust hydrogen. In section VII.F.3.c of this preamble, the EPA proposes co-firing of low-GHG hydrogen as BSER for certain new base load combustion turbines. A number of the examples that the EPA cites as evidence that companies are developing combined cycle turbines to co-fire hydrogen either are existing turbines that companies are planning to retrofit to burn hydrogen or are already under construction, and would, therefore, be classified as existing turbines under this rule. Because new combined cycle turbines that operate at capacity factors of greater than 50 percent are similar to existing combined cycle turbines that operate at capacity factors of greater than 50 percent, the EPA is proposing a similar BSER pathway for existing combustion turbines, based upon co-firing 30 percent (by volume) low-GHG hydrogen in 2032 and ramping up thereafter to 96 percent (by volume) low-GHG hydrogen in 2038.

There are two key questions related to whether co-firing low-GHG hydrogen in existing combustion turbines is

<sup>565</sup> [https://www.andovertechnology.com/wp-content/uploads/2021/03/C\\_18\\_EDF\\_FINAL.pdf](https://www.andovertechnology.com/wp-content/uploads/2021/03/C_18_EDF_FINAL.pdf).

adequately demonstrated. The first question is whether existing combustion turbines are capable of co-firing significant amounts of hydrogen and/or if they can be retrofitted to do so. The second question is whether there will be an adequate supply of low-GHG hydrogen. These points are discussed below.

#### i. Capability of Existing Turbines To Co-Fire Hydrogen

There are at least three lines of evidence that demonstrate that co-firing low-GHG hydrogen in existing turbines is possible today (with a number of them already able to fire 100 percent hydrogen) and that by approximately 2030, many additional turbine models will have the capability to co-fire 100 percent hydrogen. First, information from turbine vendors indicates that they already have significant experience in operating turbines with hydrogen; some of their existing turbine models can co-fire hydrogen; and/or they are currently engaged in projects to upgrade existing turbines to co-fire hydrogen. Second, test burns have been completed on several existing utility turbines. Third, several utilities have indicated plans to retrofit existing turbines to co-fire hydrogen.

Existing turbine vendors including GE, Mitsubishi, and Siemens have indicated that their turbines can currently co-fire some amounts of hydrogen; and, they have plans to expand those capabilities. GE has indicated that most of their product line can currently be configured to co-fire significant amounts of hydrogen.<sup>566</sup> Siemens is currently offering retrofit packages for many of its existing turbines that will allow them to combust up to 75 percent hydrogen.<sup>567</sup> Mitsubishi also offers retrofit packages that could allow for up to 100 percent firing of hydrogen.<sup>568</sup>

Section VII.F.3.c.vii(A) of this preamble includes discussion of how retrofitting existing turbines to co-fire with increasing amounts of hydrogen is adequately demonstrated. Several turbines currently in operation have the

capability to co-fire hydrogen up to 30 percent without modifications. Other existing turbine models would need modifications to enable co-firing between 50 and 100 percent.

Moreover, several existing combined cycle turbines have demonstrated the ability to co-fire some amounts of hydrogen. The Long Ridge Energy Terminal tested 5 percent hydrogen co-firing at the 485-MW combined cycle plant on a GE HA-class (GE 7HA.02) in 2022. The turbine is designed to enable a transition to 100 percent hydrogen fuel. This example is particularly salient given the large capacity of the unit. No modifications should be required for this turbine model, which has been available since 2017, to operate with between 5 and 20 percent hydrogen co-firing. Higher hydrogen co-firing concentrations will require some modification.<sup>569</sup>

Southern Company has also demonstrated hydrogen co-firing on a Mitsubishi, M501G turbine. The demonstration involved co-firing 20 percent hydrogen (by volume), was successful at both full and partial load, and demonstrated compliance with emissions requirements without impacting maintenance intervals.<sup>570</sup> Other test burns have demonstrated the ability to fire up to 80 percent hydrogen without emissions excursions.<sup>571</sup>

Several utilities are exploring the use of hydrogen in their existing turbine fleet. For example, Constellation Energy, which owns a fleet of 23 gas-fired turbines with a combined total capacity of 8.6 GW, asserts that retrofitting existing turbines to co-fire hydrogen is technically feasible with existing turbine models: “Based on our assessments, retrofits using available technology can allow hydrogen blending at 50–100 percent by volume in select generators. These retrofits, which include burner and additional balance-of-plant modifications, allow for more substantial CO<sub>2</sub> emissions reductions.”<sup>572</sup> Florida Power and Light (FPL) intends to convert 16 GW of existing turbine capacity to run on 100 percent hydrogen by 2045.<sup>573</sup> They are

currently developing a 25 MW electrolyzer project at the Cavendish Energy Center.<sup>574</sup>

One concern with hydrogen co-firing is that, because it burns at a higher temperature, it has the potential to generate more thermal NO<sub>x</sub>. The most commonly used NO<sub>x</sub> combustion control for base load combined cycle turbines is dry low NO<sub>x</sub> (DLN) combustion. Even though the ability to co-fire hydrogen in combustion turbines that are using DLN combustors to reduce emissions of NO<sub>x</sub> is currently more limited, all major combustion turbine manufacturers have developed DLN combustors for utility EGUs that can co-fire hydrogen.<sup>575</sup> Moreover, the major combustion turbine manufacturers are designing combustion turbines that will be capable of combusting 100 percent hydrogen by approximately 2030, with DLN designs that assure acceptable levels of NO<sub>x</sub> emissions.<sup>576 577</sup>

#### ii. Availability of Low-GHG Hydrogen

The EPA is proposing that the BSER for existing combustion turbines includes co-firing 30 percent (by volume) low-GHG hydrogen by 2032 and 96 percent (by volume) by 2038. The EPA is proposing to define low-GHG hydrogen as hydrogen that is produced with overall carbon emissions of less than 0.45 kg CO<sub>2</sub>e/kgH<sub>2</sub> from well-to-gate. Electrolytic hydrogen produced using zero-carbon emitting energy sources is the most likely, but not the only, form of hydrogen anticipated to meet this proposed definition.<sup>578</sup>

Suitable volumes of low-GHG hydrogen are expected to be produced by the 2032 and 2038 timeframes to satisfy the demand driven by this proposed rule. As referenced throughout this proposal, DOE’s clean hydrogen production estimates are 10 MMT annually of clean hydrogen by 2030, and 20 MMT annually by 2040. There is reason to believe actual produced

<sup>566</sup> [https://www.ge.com/gas-power/future-of-energy/hydrogen-fueled-gas-turbines?utm\\_campaign=h2&utm\\_medium=cpc&utm\\_source=google&utm\\_content=eta&utm\\_term=Ge%20gas%20turbine%20hydrogen&gad=1&gclid=EAIaIqobChMIqMaL6IXGgIVhsjBx2gPgb-EAAYASAAEGK61PD\\_BwE and https://www.ge.com/content/dam/gepower-new/global/en\\_US/downloads/gas-new-site/future-of-energy/hydrogen-overview.pdf](https://www.ge.com/gas-power/future-of-energy/hydrogen-fueled-gas-turbines?utm_campaign=h2&utm_medium=cpc&utm_source=google&utm_content=eta&utm_term=Ge%20gas%20turbine%20hydrogen&gad=1&gclid=EAIaIqobChMIqMaL6IXGgIVhsjBx2gPgb-EAAYASAAEGK61PD_BwE and https://www.ge.com/content/dam/gepower-new/global/en_US/downloads/gas-new-site/future-of-energy/hydrogen-overview.pdf)

<sup>567</sup> <https://assets.siemens-energy.com/siemens/assets/api/uuid:66b2b6a3-7cdc-404d-9ab0-ddc4f27fd626614f9b954e3f4>

<sup>568</sup> <https://solutions.mhi.com/clean-fuels/hydrogen-gas-turbine/>

<sup>569</sup> <https://www.powermag.com/first-hydrogen-burn-at-long-ridge-ha-class-gas-turbine-marks-triumph-for-ge/>

<sup>570</sup> <https://www.powermag.com/southern-co-gas-fired-demonstration-validates-20-hydrogen-fuel-blend/>

<sup>571</sup> <https://www.cj-online.com/real-world-experience-firing-hydrogen-natural-gas-mixtures/>

<sup>572</sup> Constellation Energy Corporation’s Comments on EPA Draft White Paper: Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units.

<sup>573</sup> <https://cleanenergy.org/blog/nextera-sets-goal-to-decarbonize-proposes-big-transition-for-florida-power-light/>

<sup>574</sup> <https://dailyenergyinsider.com/news/34040-florida-power-light-taps-cummins-for-its-green-hydrogen-facility/>

<sup>575</sup> Siemens Energy (2021). Overcoming technical challenges of hydrogen power plants for the energy transition. NS Energy. <https://www.nsenerybusiness.com/news/overcoming-technical-challenges-of-hydrogen-power-plants-for-energy-transition/>

<sup>576</sup> Simon, F. (2021). *GE eyes 100% hydrogen-fueled power plants by 2030*. <https://www.euractiv.com/section/energy/news/ge-eyes-100-hydrogen-fueled-power-plants-by-2030/>

<sup>577</sup> Patel, S. (2020). *Siemens’ Roadmap to 100% Hydrogen Gas Turbines*. <https://www.powermag.com/siemens-roadmap-to-100-hydrogen-gas-turbines/>

<sup>578</sup> DOE, Pathways to Commercial Lifting: Clean Hydrogen (March 2023).

low-GHG hydrogen will exceed those levels. Announced clean hydrogen production projects total 12 MMT annually for 2030.<sup>579</sup> In fact, hydrogen production could outpace DOE's projections if demand markets across sectors, including the power sector, grow rapidly and emerge simultaneously with cost declines across the value chain.<sup>580</sup> Over time, the emergence of the self-sustaining low-GHG hydrogen markets are predicted to be established as demand for low-GHG solidifies and anchors the market, ensuring low-GHG production even after the PTC sunsets. Given the magnitude of the PTC for low-GHG hydrogen, \$3/kg, electrolytic hydrogen production is expected to accelerate, accounting for between 70 and 95 percent of hydrogen production in 2030, and between 30 and 50 percent in 2040.<sup>581</sup>

Further, multiple utilities are pursuing projects to secure supplies of electrolyzer-based hydrogen for their power projects. As mentioned earlier in this proposal, Intermountain Power is working with partners to develop an integrated hydrogen turbine, a hydrogen production facility, and a hydrogen storage facility in Delta, Utah. All three components of the project are under construction and are scheduled to be operational by 2025, with the turbine combusting 30 percent (by volume) low-GHG hydrogen at startup.<sup>582</sup> FPL has announced plans to build 30 GW of excess solar to supply clean hydrogen production to power its turbines and to sell to other customers.<sup>583</sup> Entergy has entered into multiple agreements to

explore the use of existing and new renewable generating assets and transmission to supply zero GHG electricity to developers of hydrogen production plants.<sup>584</sup> Multiple US utilities are collaborating to develop hydrogen hubs.<sup>585</sup>

#### c. Costs

The fact that existing sources are already planning to combust low-GHG hydrogen, even in the absence of a regulatory requirement, is an indication that the costs of co-firing are reasonable.

The EPA has also developed a more specific description of the costs, which follows. It incorporates some components of the analysis of costs of co-firing low-GHG hydrogen for new turbines, as discussed in section VII.F.3.c.vii(B) of this preamble.

There are three sets of potential costs associated with retrofitting combustion turbines to co-fire hydrogen: (1) Capital costs of retrofitting combustion turbines to have the capability of co-firing hydrogen; (2) pipeline infrastructure to deliver hydrogen; and (3) the fuel costs related to production of low-GHG hydrogen. While many combustion turbines are able to fire lower volume blends of hydrogen with natural gas, not all have the capacity or on-site infrastructure necessary to blend higher volumes of hydrogen. The primary costs that combustion turbines would incur would be the fuel costs for low-GHG hydrogen, along with limited capital retrofit costs, in order to co-fire hydrogen at the 30 percent and 96 percent levels that the EPA is proposing as the BSER.

One company, Constellation Energy Corporation, has estimated the costs to retrofit existing plants to co-fire hydrogen and has indicated that they are reasonable: "We expect \$10–\$60/kW in retrofit costs to achieve 30–60% hydrogen blending by volume at our power plants. At blend levels in the range of 60–100%, OEMs have suggested pricing of roughly \$100/kW."<sup>586</sup> The EPA estimates that if low-GHG hydrogen is available at a

delivered price of \$1/kg,<sup>587</sup> co-firing 30 percent hydrogen in a combined cycle EGU operating at a capacity factor of 65 percent would increase the levelized cost of electricity (LCOE) by \$2.9/MWh and a 96 percent co-firing rate would increase the LCOE by \$21/MWh.<sup>588</sup> Regardless of the level of hydrogen co-firing, the CO<sub>2</sub> abatement cost is \$64/ton (\$70/metric ton) at the affected facility.<sup>589</sup> For an aeroderivative simple cycle combustion turbine operating at a capacity factor of 40 percent, the EPA estimates co-firing 30 percent low-GHG hydrogen would increase the LCOE by \$4.1/MWh, and a 96 percent co-firing rate would increase the LCOE by \$30/MWh. At a delivered price of \$0.75/kg, the CO<sub>2</sub> abatement costs for co-firing hydrogen would be \$32/ton (\$35/metric ton). For a combined cycle EGU, the EPA estimates the LCOE increase would be \$1.4/MWh and \$11/MWh for the 30 percent and 96 percent cases, respectively. For a simple cycle EGU, the EPA estimates the LCOE increase would be \$2.1/MWh and \$15/MWh for the 30 percent and 96 percent cases, respectively.

The EPA is soliciting comment on what additional costs would be required to ensure that combustion turbines are able to co-fire between 30 to 96 percent low-GHG hydrogen and if there are efficiency impacts from co-firing hydrogen. Retrofits to add the capacity to combust higher volumes of hydrogen could include retrofitting the combustor, increasing the size of the fuel piping, and upgrades to minimize fuel leakage, hydrogen storage and blending equipment, upgraded control systems, modification to the continuous emissions monitoring system, safety upgrades and leakage detectors, modification of the HRSG to accept higher temperature exhaust, and NO<sub>x</sub> control modifications (e.g., upgraded premix combustion technologies).<sup>590</sup> According to model plant estimates in EPRI's US-REGEN model, the heat rate of a hydrogen-fired combustion turbine is 5 percent higher than a comparable natural gas-fired combustion turbine. Furthermore, for hydrogen-fired combustion turbines relative to a comparable natural gas-fired combustion turbine, the capital costs are

<sup>579</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>. Figure 8 of the Liftoff Report represents compiled clean hydrogen projects with aggregated 2030 production exceeding 12 MMT annually.

<sup>580</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>. Figure 13 presents modeling of hydrogen production volumes under various scenarios, including projections of 20MMT in 2030, and 42 MMT in 2040 based on high end of ranges for end use demand which assumes additional ramp up in policy support for decarbonization—which is consistent with this proposal to reduce emissions from the power sector, as well as EPA's proposed Greenhouse Gas Emissions Standards for Heavy-Duty Vehicle.

<sup>581</sup> DOE Pathways to Commercial Lifting: Clean Hydrogen, March 2023. <https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB-0329-update.pdf>. Figure 14 of the Liftoff report projects the split of hydrogen production in future years between electrolytic and SMR.

<sup>582</sup> <https://www.ipautah.com/ipp-renewed/>.

<sup>583</sup> <https://cleanenergy.org/blog/nextera-sets-goal-to-decarbonize-proposes-big-transition-for-florida-power-light/>.

<sup>584</sup> <https://www.entergynewsroom.com/news/entergy-texas-new-fortress-energy-partner-advance-hydrogen-economy-in-southeast-texas/> and <https://www.entergynewsroom.com/news/entergy-texas-monarch-energy-collaborate-advance-southeast-texas-energy-infrastructure-1323187465/>.

<sup>585</sup> <https://news.duke-energy.com/releases/major-southeast-utilities-establish-hydrogen-hub-coalition>.

<sup>586</sup> Constellation Energy Corporation's Comments on EPA Draft White Paper: Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating Units Docket ID No. EPA–HQ–OAR–2022–0289, June 6, 2022).

<sup>587</sup> The delivered price includes the purchase cost of the fuel and its transportation costs and the 45V tax credit.

<sup>588</sup> The EIA long-term natural gas price for utilities is \$3.69/MMBtu.

<sup>589</sup> The abatement cost of co-firing low-GHG hydrogen is determined by the relative delivered cost of the low-GHG hydrogen and natural gas.

<sup>590</sup> Simon, Nima, Retrofitting Gas Turbine Facilities for Hydrogen Blending, November 2, 2022. <https://www.icf.com/insights/energy/retrofitting-gas-turbines-hydrogen-blending>.

approximately \$70/kW higher, the fixed operating costs are approximately \$1/year per kW higher, and the non-fuel variable operating costs are approximately \$0.5/MWh higher.<sup>591</sup> While these costs are for new combustion turbines, the amounts could be higher for retrofits to combustion turbines. To the extent it is appropriate to account for additional costs associated with a hydrogen co-firing BSER for existing combustion turbines, the EPA is soliciting comment on whether capital and fixed costs should be increased by 9 percent, consistent with the NETL estimated retrofit costs of CCS relative to new combustion turbines.

The EPA is proposing to determine that the increase in operating costs from a BSER based on low-GHG hydrogen is reasonable.

#### d. Non-Air Quality Health and Environmental Impact and Energy Requirements

The co-firing of hydrogen in combustion turbines in the amounts that the EPA proposes as the BSER would not have adverse non-air quality health and environmental impacts. It would potentially result in increased production of NO<sub>x</sub>, but those NO<sub>x</sub> emissions can be controlled, as described in sections VII.F.3.c.vii.(A) and XI.C.2.b.i of this preamble.

In addition, co-firing hydrogen in the amounts proposed would not have adverse impacts on energy requirements, including either the requirements of the combustion turbines to obtain fuel or on the energy sector more broadly, particularly with respect to reliability. As discussed in sections VII.F.3.c.vii.(A)–(B) and XI.C.2.b.–c. of this preamble, combustion turbines can be constructed to co-fire high volumes of hydrogen in lieu of natural gas, and the EPA expects that low-GHG hydrogen will be available in sufficient quantities and at reasonable cost. Any impact on the energy sector would be further mitigated by the large amounts of existing generation that would not be subject to requirements in this rule and the projected new capacity in the base case modeling.

#### e. Extent of Reductions in CO<sub>2</sub> Emissions

The site-specific reduction in CO<sub>2</sub> emissions achieved by a combustion turbine co-firing hydrogen is dependent on the volume of hydrogen blended into the fuel system. Due to the lower energy

density by volume of hydrogen compared to natural gas, an affected source that combusts 30 percent by volume hydrogen with natural gas would achieve approximately a 12 percent reduction in CO<sub>2</sub> emissions versus firing 100 percent natural gas.<sup>592</sup> A source combusting 100 percent hydrogen would have zero CO<sub>2</sub> stack emissions because hydrogen contains no carbon, as previously discussed. A source co-firing 96 percent by volume hydrogen (approximately 89 percent by heat input) would achieve an approximate 90 percent CO<sub>2</sub> emission reduction, which is roughly equivalent to the emission reduction achieved by sources utilizing 90 percent CCS.

#### f. Promotion of the Development and Implementation of Technology

Determining co-firing 30 percent (by volume) low-GHG hydrogen by 2032 and co-firing 96 percent (by volume) to be components of the BSER would generally advance technology development in both the production of low-GHG hydrogen and the use of hydrogen in combustion turbines, for the same reasons discussed with respect to new combustion turbines in section VII.F.3.c.vii.(E) of this preamble.

#### g. Summary

The EPA proposes that co-firing 30 percent low-GHG hydrogen by 2032 and 96 percent by 2038 qualify as a BSER pathway for large and frequently-used existing combustion turbines. For the reasons discussed above, the EPA proposes that co-firing low-GHG hydrogen on that pathway is adequately demonstrated in light of the capability of combustion turbines to co-fire hydrogen and the EPA's reasonable expectation that adequate quantities of low-GHG hydrogen will be available by 2032 and 2038 and at reasonable cost. Moreover, combusting hydrogen will achieve reductions because it does not produce GHG emissions and will not have adverse non-air quality health or environmental impacts or energy requirements, including on the nationwide energy sector. Primarily because the production of low-GHG hydrogen generates the fewest GHG emissions, the EPA proposes that co-firing low-GHG hydrogen, and not other types of hydrogen, qualify as the "best" system of emission reduction. See section VII.F.3.c.vii.(F) of this preamble. The fact that co-firing low GHG hydrogen creates market demand for, and advances the development of, low-GHG hydrogen, a fuel that is useful for

reducing emissions in the power sector and other industries, provides further support for this proposal.

Similar to new base load combined cycle turbines, the EPA is also taking comment on an alternative approach in which the BSER for these units would be based on CCS with 90 percent capture, for the reasons discussed next, but units could follow a pathway that would enable them to achieve the same reductions using low-GHG hydrogen.

### 3. CCS

#### a. Overview

The EPA believes that CCS is an effective mitigation measure for existing combustion turbines and that it would be most cost-effective for units that are frequently operating. As discussed in section VII.F.3.b.iii.(A) of this preamble, multiple companies are considering adding CCS to existing fossil fuel-fired power plants and multiple companies have performed FEED studies evaluating the feasibility of installing CCS on an existing combined cycle unit. As also discussed there, CO<sub>2</sub> pipelines are available and their network is expanding in the U.S., the safety of existing and new supercritical CO<sub>2</sub> pipelines is comprehensively regulated by PHMSA, and areas without reasonable access to pipelines for geologic sequestration can transport CO<sub>2</sub> to sequestration sites via other transportation modes. As also discussed there, geologic sequestration of CO<sub>2</sub> is well proven, broadly available throughout the U.S., and there is a detailed set of regulatory requirements to ensure the security of sequestered CO<sub>2</sub>. For these reasons, the EPA proposes that CCS with 90 percent capture is adequately demonstrated for existing combustion turbines.

The EPA further proposes that CCS is cost-reasonable for existing turbines that are greater than 300 MW and operate at greater than 50 percent capacity. The EPA believes that many existing combined cycle units are likely to be able to install and operate CCS within the costs that the EPA found to be reasonable for new stationary combustion turbines and existing coal-fired steam generating units. Certain parts of the cost calculation should be much the same as for new sources, including the costs for transportation and sequestration as well as the availability of the IRC section 45Q tax credit, although the costs for retrofitting capture equipment may in some cases be higher. See section VII.F.3.b.iii.(B) of this preamble. NETL estimates that the capital cost of CCS retrofits on combined cycle EGUs is 9 percent

<sup>591</sup> <https://us-regen-docs.epri.com/v2021a/assumptions/electricity-generation.html#new-generation-capacity>.

<sup>592</sup> The energy density by volume of hydrogen is lower than natural gas.

higher than for new combined cycle EGUs.<sup>593</sup> The additional capital costs increase the LCOE of the retrofit CCS by an additional \$1.5/MWh compared to an installation at a new combined cycle EGU, which is consistent with control costs that EPA has found to be reasonable in other rulemakings, as noted in section VII.F.3.b.iii.(B)(5).

The ability to cost-effectively apply CCS was a significant consideration in the EPA's selection of proposed capacity and utilization thresholds to determine which existing turbines would be covered by these proposed emission guidelines. The EPA considered two primary factors in evaluating an appropriate capacity threshold. The first is emission reduction potential. As the capacity threshold decreases a larger amount of the existing fleet is covered and overall emission reduction potential increases. For instance, at a 500 MW threshold, only 2 percent of the capacity and 7 percent of the emissions are covered. The second factor the EPA considered was capacity to build CCS. In 2030, the EPA projects that approximately 12 GW of coal-fired generation will likely install CCS (including both CCS being installed to meet requirements of this rule and CCS that EPA projects would occur even without the requirements proposed here). There are likely to also be a number of other CCS projects for other industries developed in the 2023 through 2030 timeframe. Multiple industries including the ethanol industry and the hydrogen production sector have announced post combustion CCS projects in response to the IRA.

The EPA believes it is reasonable to assume therefore that by 2035 there will be a larger capability to build CCS retrofits than in 2030. Had the EPA proposed capacity thresholds of 400 MW or 500 MW, they would have only resulted in the need for a maximum of 12 GW or 6 GW of CCS capacity respectively by 2035 for existing gas turbines covered by this proposal, which is less than the CCS capacity the EPA projects in 2030 to meet the existing coal BSER. That would likely mean foregoing feasible, cost-effective emissions reductions. By contrast, the 300 MW cutpoint that EPA is proposing would require up to 37 GW of CCS in 2035. While this is approximately 3 times the amount of CCS that the EPA is projecting for coal-fired units in 2030, the EPA believes that 300 MW is a reasonable threshold primarily because

there will be significant time to deploy the needed infrastructure, a total of eleven years from the likely finalization of these guidelines. In addition, it is unlikely that all of the units that EPA projects would be affected in 2035 would choose to install CCS; some would likely choose to co-fire low-GHG hydrogen.<sup>594</sup> For these reasons, the EPA believes that there will be adequate capability to build enough CCS for the existing combustion turbine EGUs subject to a CCS BSER at a capacity threshold of 300 MW, given the amount of time provided.

The EPA also considered a capacity threshold of 200 MW and of 100 MW. According to the EPA's projections, a threshold of 200 MW would affect a total of 85 GW, and a threshold of 100 MW would affect 134 GW of existing combustion turbine capacity. While the EPA believes that it is possible that the industry could install that amount of CCS on this timeline, the EPA believes it is important to gather more information on the question of how quickly CCS can be deployed and is therefore taking comment on, but not proposing, a lower capacity threshold of 200 MW or 100 MW, and taking comment on whether it would be feasible to install CCS and/or co-fire hydrogen for the 85 GW or 134 GW of units it projects would be covered under those thresholds and a capacity factor of greater than 50 percent.

Historical rates of emission control technology retrofits at existing coal-fired power plants, such as flue gas desulfurization (FGD), indicate that rapid deployments of such technologies in response to regulatory requirements have proven feasible historically in the United States and elsewhere. FGD was rapidly deployed in the United States in response to various regulatory requirements, including the 1971 NSPS addressing SO<sub>2</sub> emissions. Although other compliance options were available, FGD—a wholly new technology—was installed on 48 GW of coal-fired power plants between 1973 and 1984,<sup>595</sup> while the number of technology vendors went from 1 to 16.<sup>596</sup> Similarly, Germany subsequently

<sup>594</sup> Approximately 6 GW of the capacity projected to operate at a capacity factor of greater than 50 percent in the EPA's modeling is owned by NextERA who has already announced intentions to convert much of their combined cycle turbines to co-fire increasing amounts of hydrogen.

<sup>595</sup> Van Ewijk, S., McDowall, W. Diffusion of flue gas desulfurization reveals barriers and opportunities for carbon capture and storage. *Nat Commun* 11, 4298, Figure 1 and Source Data (2020), available at <https://doi.org/10.1038/s41467-020-18107-2>.

<sup>596</sup> Taylor, et al., *Regulation as Mother of Innovation*, 27 Law & Pol'y 348, 356 (2005).

increased its share of FGD from 10 to 79 percent in four years.<sup>597</sup> It should be noted that as FGD became a more familiar technology, installation rates accelerated, reaching nearly 30 GW a year in the United States.<sup>599</sup> A very rapid ramp up happened after the Clean Air Interstate Rule, for example, where the installed capacity increased from 131 GW in 2007 to 200 GW in under four years.<sup>600</sup> There are many differences between FGD and CCS, but the history of the rapid build-out of FGD generally supports the EPA's view that companies with the expertise to install complex emission control equipment can rapidly ramp up capacity in response to a regulatory driver.

The EPA seeks comment on the feasibility of setting a threshold of 100 or 200 MW and a 40 percent capacity factor in light of these examples and other relevant considerations. As further described below, the EPA further proposes that CCS with 90 percent capture for existing combustion turbines greater than 300 MW and operating at more than 50 percent capacity meets the other criteria to qualify as the BSER, for the same reasons as it does for new combustion turbines in the baseload subcategory:

#### b. Adequately Demonstrated

Section VII.F.3.b of this preamble includes discussion of how CCS with a 90 percent capture rate has been adequately demonstrated and is technically feasible based on the demonstration of the technology at existing coal-fired steam generating units and industrial sources in addition to combustion turbines. Notably, the function, design, and operation of post-combustion CO<sub>2</sub> capture equipment is similar, although not identical, for both steam generating units and combustion turbines. As a result, application of CO<sub>2</sub> capture at existing coal-fired steam generating units helps show that it is adequately demonstrated for combustion turbines as well.

<sup>597</sup> Van Ewijk, S., McDowall, W. Diffusion of flue gas desulfurization reveals barriers and opportunities for carbon capture and storage. *Nat Commun* 11, 4298 (2020). <https://doi.org/10.1038/s41467-020-18107-2>.

<sup>598</sup> Similarly, in response to regulatory requirements over 100 GW of coal-fired generation installed selective catalytic reduction (SCR) between 1999 and 2009, ramping from very low levels. Healey, Scaling and Cost Dynamics of Pollution Control Technologies, at 7, Figure 3 (2013). <https://core.ac.uk/download/pdf/44737055.pdf>.

<sup>599</sup> Markussan, *Scaling up and Deployment of FGD in the US (CCS—Releasing the Potential)* (2012) at v, 24.

<sup>600</sup> Electric Power Annual 2015, <https://www.eia.gov/electricity/annual/archive/pdf/03482015.pdf>.

<sup>593</sup> Tommy Schmitt, Sally Homsy, National Energy Technology Laboratory, Cost and Performance of Retrofitting NGCC Units for Carbon Capture—Revision 3, March 17, 2023 (DOE/NETL-2023/3848).

In the retrofit context, SaskPower's Boundary Dam Unit 3, a 110 MW lignite-fired unit in Saskatchewan, Canada, has demonstrated CO<sub>2</sub> capture rates of 90 percent using an amine-based post-combustion capture system retrofitted to the existing steam generating unit. The capture plant, which began operation in 2014, was the first full-scale CO<sub>2</sub> capture system retrofit on an existing coal-fired power plant.<sup>601</sup> Other references detailed in section VII.F.3.b.iii.(A)(2) provide additional support for the demonstration of CO<sub>2</sub> capture retrofits.

Moreover, section VII.F.3.b.iii.(A)(3) of this preamble describes how CCS has been successfully applied to a combined cycle EGU (the Bellingham Energy Center in south central Massachusetts) and how several other projects are in development. Both section VII.F.3.b.iii.(A)(3) of this preamble and the TSD on *GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines* discuss several CCS projects under development involving retrofits to existing NGCC units.

In addition to CO<sub>2</sub> capture, the CO<sub>2</sub> transport and geologic storage aspects of CCS systems are also adequately demonstrated, as discussed in section VII.F.3.b and section X.D.1.a of this preamble and in the *GHG Mitigation Measures for Steam Generating Units* TSD. Geologic sequestration potential for CO<sub>2</sub> is widespread and available throughout the U.S. Nearly every State in the U.S. has or is in close proximity to formations with geologic sequestration potential, including areas offshore. These areas include deep saline formation, unmineable coal seams, and oil and gas reservoirs. Additionally, the U.S. CO<sub>2</sub> pipeline network has steadily expanded (with 5,339 miles in operation in 2021, a 13 percent increase in CO<sub>2</sub> pipeline miles since 2011), and appears primed to continue expanding, with several major projects recently announced across the country. Areas without reasonable access to pipelines for geologic sequestration can transport CO<sub>2</sub> to sequestration sites via other transportation modes such as ship, road tanker, or rail tank cars.

#### c. Costs

The EPA is proposing that the costs of CCS are reasonable for existing

<sup>601</sup> Giannaris, S., et al., Proceedings of the 15th International Conference on Greenhouse Gas Control Technologies (March 15–18, 2021). *SaskPower's Boundary Dam Unit 3 Carbon Capture Facility—The Journey to Achieving Reliability*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3820191](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3820191).

combustion turbines that are large and frequently used. As further discussed in the Regulatory Impact Analysis and the *GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines* TSD, the EPA's approach relies on cost and performance assumptions consistent with the IPM post-IRA 2022 reference case.<sup>602</sup> The EPA's baseline shows that 7 GW of existing natural gas combined cycle capacity retrofits with CCS in 2030, rising to 10 GW in 2035. The significant deployment of CCS on combined cycle natural gas EGUs in the absence of emission standards reinforces the cost reasonableness and feasibility of the proposed standards.

Section VII.F.3.b.iii.(B) and section X.D.1.a.ii of this preamble discuss the cost-reasonableness of CCS technology in the context of new combustion turbines and existing coal-fired steam generating units. Additionally, a March 2023 NETL report estimates that the capital cost of CCS retrofits on combined cycle EGUs is 9 percent higher than for installation of CCS equipment on new greenfield combined cycle EGUs.<sup>603</sup> The higher retrofit costs account for the cost premium for design, construction, and tie-in constraints imposed by existing plant layout and operation. The additional capital costs increase the LCOE of the retrofit CCS by an additional \$2.2/MWh compared to an installation at a new combined cycle EGU.<sup>604</sup> Assuming the same model plant, a 90 percent-capture retrofit amine-based post combustion CCS system increases the LCOE by \$8.6/MWh and has overall CO<sub>2</sub> abatement costs of \$26/ton (\$28/metric ton). Similar to NETL estimates for greenfield CCS projects, costs at a specific plant would be expected to vary somewhat from this estimate, as it does not include site and plant-specific considerations such as seismic conditions, local labor costs, or local environmental regulations.

<sup>602</sup> These assumptions are detailed at: <https://www.epa.gov/system/files/documents/2023-03/Chapter%206%20-%20CO2%20Capture%2C%20Storage%2C%20and%20Transport.pdf>.

<sup>603</sup> Cost and Performance of Retrofitting NGCC Units for Carbon Capture—Revision 3 (DOE/NETL—2023/3848, March 17, 2023). [https://www.netl.doe.gov/projects/files/CostandPerformanceofRetrofittingNGCCUnitsforCarbonCaptureRevision3\\_031723.pdf](https://www.netl.doe.gov/projects/files/CostandPerformanceofRetrofittingNGCCUnitsforCarbonCaptureRevision3_031723.pdf).

<sup>604</sup> These calculations use the NETL F-Class turbine, a service life of 12 years, an interest rate of 7.0 percent, a natural gas price of \$3.69/MMBtu, a capacity factor of 75 percent, a transport, storage, and monitoring cost of \$10/metric ton, and a 45Q tax credit of \$85/metric ton.

#### d. Non-Air Quality Health and Environmental Impact and Energy Requirements

As in the context of new NGCC units and existing coal-fired steam generating units (discussed in section VII.F.3.b.iii.(C) and section X.D.1.a.iii of this preamble), the EPA does not expect the use of CCS at large, frequently used existing combustion turbines to have unreasonable adverse consequences related to non-air quality health and environmental impact or to energy requirements.

Regarding energy requirements, upon retrofitting an NGCC plant with CCS, a derate in the net plant electrical output will be incurred due to the parasitic/auxiliary energy demand required to run the CCS system, as well as steam extraction from the steam cycle to satisfy the CCS reboiler duty.<sup>605</sup> As discussed in the TSD on *GHG Mitigation Measures—Carbon Capture and Storage for Combustion Turbines*, a recent NETL report has estimated that the resulting derates for 90 percent CO<sub>2</sub> capture retrofits range from an 11.5 to 11.8 percent loss of net MWe.

Despite decreases in efficiency, IRC section 45Q tax credits provide an incentive for increased generation with full operation of CCS because the credits are proportional to the amount of captured and sequestered CO<sub>2</sub> emissions and not to the amount of electricity generated. The EPA is proposing that the energy penalty is relatively minor compared to the GHG benefits of CCS. The EPA does not believe that determining CCS to be BSER for large, frequently operated combustion turbines will cause reliability concerns. This is because of the limited increase in costs and energy penalty due to CCS, coupled with the amounts of smaller or lower capacity generation that would not be subject to these requirements and the projected new capacity in the base case modeling. For the estimated 37 GW of facilities that would face requirements under this proposal, if they all installed CCS retrofit the reduction in available capacity would be approximately 4.3 GW, or less than 1% of the total modeled available natural gas capacity in 2035. Grid planners, operators, and market participants can address the potential, marginal impact, through development of a similarly small increment of accredited capacity, whether from new natural gas simple cycle turbine

<sup>605</sup> *Cost and Performance of Retrofitting NGCC Units for Carbon Capture—Revision 3*. (DOE/NETL—2023/3848, March 17, 2023). <https://www.osti.gov/biblio/1961845>.

deployment, new energy storage, or new sources of clean energy.

Regarding non-air quality health and environmental impact, criteria or hazardous air pollutant emissions would in general be mitigated or adequately controlled by equipment needed to meet other CAA requirements, and the EPA's assessment is that the additional cooling water requirements from CCS at NGCC units are reasonable, as discussed in section VII.F.3.v.iii.(C). The EPA is committed to working with its fellow agencies to foster meaningful engagement with communities and protect communities from pollution. This can be facilitated through the existing detailed regulatory framework for CCS projects and further supported through robust and meaningful public engagement early in the technological deployment process. CCS projects undertaken pursuant to these emission guidelines will, if the EPA finalizes proposed revisions to the CAA section 111 implementing regulations,<sup>606</sup> be subject to requirements for meaningful engagement as part of the State plan development process. See section XII.F.1.b of this preamble for additional details.

#### e. Extent of Reductions in CO<sub>2</sub> Emissions

Designating CCS with 90 percent capture as a component of the BSER for large and frequently-operated combustion turbines prevents large amounts of CO<sub>2</sub> emissions. According to the NETL baseline report, adding a 90 percent CO<sub>2</sub> capture system increases the EGU's gross heat rate by 7 percent and the unit's net heat rate by 13 percent. Since more fuel would be consumed in the CCS case, the gross and net emissions rates are reduced by 89.3 percent and 88.7 percent respectively.

#### f. Promotion of the Development and Implementation of Technology

The EPA also considered whether determining CCS to be a component of the BSER for existing large and frequently operated combustion turbines will advance the technological development of CCS and concluded that this factor supports our BSER determination. Combined with the availability of 45Q tax credits and investments in supporting CCS infrastructure from the IIJA, this requirement should incentivize additional use of CCS, which should, in turn, incentivize cost reductions through the development and use of

better performing solvents or sorbents. While solvent-based CO<sub>2</sub> capture has been adequately demonstrated at the commercial scale, a determination of the BSER for certain existing combustion turbines (along with new baseload combustion turbines and long term coal-fired steam generating units) is the use of CCS will also likely incentivize the deployment of alternative CO<sub>2</sub> capture techniques at scale. Moreover, as noted above, the cost of CCS has fallen in recent years and is expected to continue to fall; and further implementation of the technology can be expected to lead to additional cost reductions, due to added experience and cost efficiencies through scaling.

The EPA seeks comment on the feasibility of setting a threshold for inclusion in the existing combustion turbine segment to be addressed by the emission guidelines proposed here of 100 or 200 MW and a 40 percent capacity factor in light of the examples of other historic deployment of pollution controls and other relevant considerations. DOE recently released a report discussing the State of carbon management technology.<sup>607</sup> In that report, DOE states that with policy support (either via regulation or incentives) or technology premiums for low-carbon products (e.g., low embodied carbon steel and concrete) the scale up of CCS technologies and pipeline and storage infrastructure would proceed much faster for the power sector than will proceed absent additional policy support or market demand.<sup>608</sup> In the report, DOE states that regulatory developments, in particular, could play a dramatic role in accelerating the pathways described for industries with lower-purity CO<sub>2</sub> streams such as power plants. The report states that absent additional incentives, CCS technology for the power sector is likely to significantly scale between 2030–2040 with pilot and demonstration technologies occurring now. As detailed in the report, several incentives have recently become available or been significantly increased that will accelerate the deployment of CCS for the power sector. The 45Q tax credit for CCS is a strong incentive, and DOE is already investing heavily through the Bipartisan Infrastructure Law at further demonstrating lower-purity CCS technologies such as those used in the power sector, which will

help to decrease costs and establish repeatable commercial arrangements.

As the DOE report discusses, CO<sub>2</sub> pipelines also need to be further built out for CCS technologies to scale. CO<sub>2</sub> pipelines are the most mature, and often the most cost-effective CO<sub>2</sub> transport technology for high volumes and will likely form the backbone of CO<sub>2</sub> transport. PHMSA reported that 5,339 miles of CO<sub>2</sub> pipelines were in operation in 2021.<sup>609</sup> Analogous historical build out of inter- and intrastate natural gas transmission pipelines demonstrates that similar levels of CO<sub>2</sub> pipeline deployment are feasible. Data reported by EIA indicates that from 1997 to 2008 over 25,000 miles of natural gas transmission pipeline was constructed, averaging over 2,000 miles per year.<sup>610</sup> Other analyses indicate that the size of CO<sub>2</sub> pipeline network necessary to capture over 1,000 million metric tons per year of CO<sub>2</sub> emissions from large, frequently operated coal and natural gas EGUs ranges from 20,000 miles to 25,000 miles.<sup>611</sup> This is in line with the historical maximum deployment of natural gas transmission pipelines, and also does not account for any economies of scale from pipeline systems developed for capture from other non-power CO<sub>2</sub> sources.

#### D. Areas That the EPA Is Seeking Comment on Related to Existing Combustion Turbines

The EPA is seeking comment on four general areas related to selecting the BSER for existing combustion turbines. First, the EPA is soliciting comment on general assumptions about potential future utilization of combustion turbines. Second, the EPA is soliciting comment on assumptions about the appropriate group of existing combustion turbine units to be addressed in this rulemaking. Third, the EPA is requesting comment on the appropriate BSER for those turbines. Fourth, the EPA is requesting comment

<sup>609</sup> U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration, "Hazardous Annual Liquid Data." 2021. <https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids>.

<sup>610</sup> <https://www.eia.gov/naturalgas/pipelines/EIA-NaturalGasPipelineProjects.xlsx>.

<sup>611</sup> Middleton, Richard and Bennett, Jeffrey and Ellett, Kevin and Ford, Michael and Johnson, Peter and Middleton, Erin and Ogland-Hand, Jonathan and Talsma, Carl, *Reaching Zero: Pathways to Decarbonize the US Electricity System with CCS* (August 30, 2022). Proceedings of the 16th Greenhouse Gas Control Technologies Conference (GHGT-16) 23–24 Oct 2022. <https://ssrn.com/abstract=4274085> or <http://dx.doi.org/10.2139/ssrn.4274085>.

<sup>607</sup> DOE Carbon Management Demonstration and Deployment Pathway, April 2023. <https://liftoff.energy.gov/>

<sup>608</sup> The Federal Buy Clean Task Force and the First Mover's Coalition are both seeking to provide a clear demand signal for low embodied emissions products.

<sup>606</sup> 87 FR 79176, 79190–92 (December 23, 2022).



on the timing of BSER requirements for existing combustion turbines.

The EPA is seeking comment on a number of issues related to how its consideration of projected future utilization of combined cycles informed its consideration of a potential BSER for existing combustion turbines. First, the EPA is taking comment on its projections of how combustion turbines will operate in the future and the key factors that influence those changes in operation. While the EPA modeling shows that there is some increase in emissions from these units in all years following imposition of CAA section 111 standards on existing coal-fired steam generating units and new stationary combustion turbines, that increase is much smaller in the later years. The EPA believes the magnitude of these trends is significantly impacted by the rate at which new low emitting generation comes on-line, in part incentivized by IRA and IJA. The EPA is taking comment on all aspects of these assumptions including: the speed at which new low-emitting generation will come on-line and the impact that it has on likely capacity factors for combined cycle units (in particular the projection that capacity factors will grow in the 2028/30 timeframe but decrease in later years).

With regard to the size and definition of the category to be covered in a first rulemaking covering only part of the existing turbine category, the EPA is also taking comment on how its assumptions about the potential operation of combustion turbines in future years coupled with considerations about the availability of infrastructure should inform which units should be covered in a first rulemaking. More specifically, the EPA is requesting comment on how to consider the rate of CCS (and potentially hydrogen) infrastructure development in determining a BSER that could potentially impact hundreds of sources. If, for instance, increased renewable generation and storage capacity were to lead to a smaller number of units operating at capacity factors of greater than 50 percent, the proposed BSER would not affect as many units and a smaller size threshold might be possible without expanding the amount of infrastructure needed. Conversely, if more units were likely to operate at a higher capacity factor, a higher capacity threshold might be appropriate. If the number of units likely to be covered by a 50 percent threshold were sufficiently small, it might be reasonable to include units in the intermediate category (e.g., units with capacity factors of between 20 percent and 50 percent) in a first

rulemaking addressing the existing fossil fuel-fired turbine category. The EPA is also taking comment on a lower capacity factor threshold (e.g., 40 percent) and a lower capacity threshold (200 MW or 100 MW, and capacities between 100 and 300 MW). With regards to units with a capacity factor of greater than 50 percent that are under 300 MW and units with a capacity factor of 50 percent or less the EPA is taking comment on the appropriateness of CCS and/or hydrogen as a BSER. With regards to hydrogen, the EPA is taking comment on the appropriate level of and timing for hydrogen co-firing. More generally, EPA is requesting comment on any feasibility issues related to broader CCS deployment should those thresholds be adjusted such that more coal capacity is affected, and how such issues could be addressed.

With regards to the BSER itself, the EPA is soliciting comment on the applicability of CCS retrofits to existing combustion turbines and its focus on base load turbines (e.g., those with a capacity factor of greater than 50 percent). This solicitation includes comment on whether particular plants would be unable to retrofit CCS, including details of the circumstances that might make retrofitting with CCS unreasonable or infeasible.

The EPA is also taking comment on the role of low-GHG hydrogen as part of BSER. More specifically, the EPA is requesting comment on the appropriateness of low-GHG hydrogen as a BSER for combustion turbines larger than 300 MW with capacity factors of greater than 50 percent. While, as has been noted earlier in this section, a number of turbines already exist or are under construction that owners of combustion turbines have indicated may burn large amounts of hydrogen in a base load mode, the EPA is also aware that other proponents of low-GHG hydrogen use in turbines focus on it primarily as an energy storage device, storing renewable energy to provide electricity in times where renewable energy was not available. The EPA is interested in the question of whether, in this case, it would be likely that a combined cycle turbine burning low-GHG hydrogen would operate near base load, and whether it be prudent to have an alternative BSER or an alternative compliance pathway for units combusting low-GHG hydrogen and solicits comments on these questions. Similar to the NSPS for base load combustion turbines, the EPA is also taking comment on whether to finalize both the proposed low-GHG hydrogen BSER and the proposed CCS with 90 percent capture BSER, or finalize a

BSER with a single pathway, such as based on application of CCS with 90 percent capture, which could also be met by co-firing with low-GHG hydrogen.

With regard to the timing for BSER, the EPA is taking comment on a 2035 CCS based BSER standard and whether that standard could reasonably be applied earlier. Similarly, the EPA is taking comment on the timing of a low-GHG hydrogen based BSER and whether a 30 percent low-GHG hydrogen standard could be implemented earlier than 2032, or if low-GHG hydrogen supply infrastructure development suggests it should be later. The EPA is taking comment on the same questions with regard to a 96 percent low-GHG hydrogen co-firing BSER in 2038.

#### *E. BSER for Remaining Combustion Turbines*

While the EPA believes that emission guidelines for units covered in the first rulemaking, proposed above, can achieve important emission reductions from the most frequently operating combustion turbines, the EPA believes that limits to infrastructure and capability to build carbon capture systems or co-fire large amounts of hydrogen caution against a first rulemaking addressing emissions from existing turbines covering all combustion turbines. In this section, the EPA discusses how developing a BSER for units in a second rulemaking could address units that do not meet the applicability requirements for the first rulemaking.

As noted above, the EPA is taking comment on what units should be part of whatever action the EPA finalizes as a result of the proposal. Based on the units that the EPA has proposed be included, units that might remain uncovered include smaller baseload units (e.g., those less than or equal to 300 MW) and all units operating less than or equal to a capacity factor of 50 percent. Particularly for the remainder of the baseload units, the EPA is interested in whether any other units should have a BSER based on CCS. The EPA is also interested in the timing of such a requirement recognizing the tensions between an earlier requirement that would both achieve earlier reductions and the need to allow time for infrastructure to develop to support growing amounts of CCS.

For intermediate turbines, the EPA is taking comment on a BSER similar to that for new turbines. In particular, the EPA is interested in comment about an appropriate pathway and timing for a BSER that would ultimately require 96 percent low-GHG hydrogen by volume.

Finally, for peaking turbines, the EPA is interested in comment about whether a clean hydrogen BSER would be appropriate, what the timing of such a requirement should be and whether there should be any phasing.

The EPA is also interested in any comments related to: potential changes in operational patterns for turbines, particularly as more renewables and storage enter the grid. For instance, the EPA is interested in comments as to whether improvements in energy storage will reduce reliance on intermediate and peaking turbines. The EPA is also interested in comments on any potential technology developments that could impact its determination of BSER. For instance, the EPA is aware that in addition to electrolyzer based hydrogen and natural gas based hydrogen, there are other means of hydrogen production receiving significant attention such as naturally occurring hydrogen, and solicits comments on whether any of these potential technology developments should impact the EPA's consideration of the appropriate BSER for the remaining turbines.

## XII. State Plans for Proposed Emission Guidelines for Existing Fossil Fuel-Fired EGUs

### A. Overview

State plan submissions under these emission guidelines are governed by the requirements of 40 CFR part 60, subpart Ba (subpart Ba).<sup>612</sup> The EPA proposed to revise certain aspects of 40 CFR part 60, subpart Ba, in its December 2022 proposal, "Adoption and Submittal of State Plans for Designated Facilities: Implementing Regulations Under Clean Air Act Section 111(d)" (proposed subpart Ba).<sup>613</sup> The Agency intends to finalize revisions to 40 CFR part 60, subpart Ba, before promulgating these emission guidelines. Therefore, State plan development and State plan submissions under these proposed emission guidelines would be subject to the requirements of subpart Ba as revised in that future final action, including any changes the EPA makes to the proposal in response to public comments. To the extent the EPA is proposing to add to, supersede, or otherwise vary the requirements of subpart Ba for the purposes of these particular emission guidelines, those proposals are explicitly addressed in this section of the preamble. Unless

expressly amended or superseded in these proposed emission guidelines, the provisions of subpart Ba, as revised by the EPA's forthcoming final rule, would apply.

This section provides information on several aspects of State plan development, including compliance deadlines, a presumptive methodology for establishing standards of performance for affected EGUs, compliance flexibilities, and State plan components and submission. In sections X and XI of this preamble, the EPA is soliciting comment on ranges for dates and values for defining subcategories, BSER, and degrees of emission limitation; those solicitations for comment extend to the proposed values and dates discussed in this section of the preamble. In section XII.B, the EPA proposes and explains its reasoning for compliance deadlines for affected steam generating units and affected combustion turbines. In section XII.C, the EPA describes its requirement that State plans achieve equivalent stringency to the EPA's BSER. Section XII.D proposes a presumptive methodology for calculating the standards of performance for affected EGUs based on subcategory as well as requirements related to invoking RULOF to apply a less stringent standard of performance than results from the EPA's presumptive methodology. Section XII.D also describes proposed requirements for increments of progress for affected EGUs in certain subcategories and milestones for affected EGUs, as well as testing and monitoring requirements. In section XII.E, the EPA proposes that States would be permitted to include trading and averaging as compliance measures for affected EGUs in their State plans, so long as plans demonstrate equivalence to the stringency that would result if each affected EGU was individually achieving its standard of performance. Finally, section XII.F describes what must be included in State plans, including plan components specific to these emission guidelines and requirements for conducting meaningful engagement.

In this section of the preamble, the term "affected EGU" means any existing fossil fuel-fired steam generating unit or existing fossil fuel-fired combustion turbine EGU that meets the applicability criteria described in sections X and XI of this preamble. Affected EGUs would be covered by the proposed emission guidelines under 40 CFR part 60 subpart UUUUb.

### B. Compliance Deadlines

The EPA is proposing a compliance date of January 1, 2030, for affected steam generating units. The proposed compliance date for the CCS combustion turbine subcategory is January 1, 2035. The proposed compliance dates for the first phase and second phase for the affected hydrogen co-fired combustion turbine subcategory are January 1, 2032, and January 1, 2038, respectively. This means that starting on the applicable compliance date, affected EGUs would be subject to standards of performance and other State plan requirements under these emission guidelines and would be required to start demonstrating compliance with those requirements.

The EPA is proposing that January 1, 2030, is the soonest that affected steam generating units could reasonably commence compliance with standards of performance given the proposed State plan submission timeline (24 months; see section XII.F.2 of this preamble) and the amount of time affected EGUs in the long-term and medium-term coal-fired steam generating unit subcategories will need to install CCS or natural gas co-firing, respectively. For consistency, the EPA is also proposing a January 1, 2030, compliance date for imminent- and near-term coal-fired units as well as the different subcategories of natural gas- and oil-fired steam generating units.

However, the EPA recognizes that the BSERs for some subcategories of affected steam-generating EGUs are routine methods of operation and maintenance, which do not require the installation of any or significant control equipment and can thus be applied earlier.<sup>614</sup> Therefore, the EPA is soliciting comment on compliance dates defined by the date of approval of the State plan or January 1, 2030, whichever is earlier, for imminent-term coal-fired steam generating units, near-term coal-fired steam generating units, and the different subcategories of natural gas- and oil-fired steam generating units.

The proposed compliance timeframe for affected steam-generating EGUs in these proposed emission guidelines is based on the amount of time the EPA believes is needed to comply with standards of performance based on implementation of natural gas co-firing or CCS. Each of these systems would require several years to plan, permit, and construct. However, as explained further in section XII.F.2 of this preamble, the EPA is proposing to

<sup>612</sup> 40 CFR 60.20a–60.29a.

<sup>613</sup> See 87 FR 79176 (December 23, 2022); see also id., Docket ID No. EPA–HQ–OAR–2021–0527–0002 (memorandum to docket containing proposed revisions to 40 CFR part 60, subpart Ba).

<sup>614</sup> The EPA is also taking comment in section X.D.3.b.ii on potential BSER options for imminent- and near-term affected coal-fired steam generating units based on low levels of natural gas co-firing.

adjust the State plan submission deadline so that certain necessary planning and design steps for natural gas co-firing or CCS implementation can take place as part of the State plan development process. That is, we expect that some of the planning and design steps described below would take place prior to State plan submission. The EPA believes that coordinating State plan development, submission, and implementation in this manner reflects how the owners/operators of affected EGUs and States would actually undertake the steps leading to ultimate deployment of a control technology and compliance with a standard of performance.

The *GHG Mitigation Measures for Steam Generating Units* TSD discusses the timeframes for implementation of natural gas co-firing and CCS at existing coal-fired steam generating EGUs. Based on this analysis, it is clear that the time needed to design and implement CCS is an important aspect for setting a compliance date under these emission guidelines. CCS projects will include planning, design, and construction of both the carbon capture system and the transport and storage system; the EPA believes that all of these steps can be completed within roughly 5 years.<sup>615</sup>

Deployment of a carbon capture system starts with a technical and economic feasibility evaluation, including a Front End Engineering Design (FEED) study. The owner/operator of an affected EGU would then proceed to making technical and commercial arrangements, including arranging project financing and permitting. These initial steps do not need to be undertaken sequentially and may be completed in 3 years or less. As noted above, the EPA also believes that at least some of these project design and development steps, including feasibility evaluations and FEED studies, can and will be completed prior to State plan submission. The EPA believes that the commencement of CCS project implementation activities, including more detailed engineering work and procurement, construction of the carbon capture system, and startup and testing, will overlap with the final steps of the initial project design and development phase. These project implementation steps take approximately 3 years to complete.

In addition to planning and implementing a carbon capture system, the owners/operators of affected EGUs

will also have to design and construct a system for transporting and storing captured CO<sub>2</sub>. The necessary steps for implementing transport and storage of captured CO<sub>2</sub> can be undertaken simultaneously with development of the CO<sub>2</sub> capture system, and some of the steps necessary for transport and storage can additionally overlap with each other. The EPA thus believes design and implementation of CO<sub>2</sub> transport and storage can be completed within 5 years.

The EPA believes that the initial phases of planning and design for CO<sub>2</sub> transport and storage, including site characterization and pipeline feasibility and design activities, can and will occur prior to State plan submission, *i.e.*, as part of the State plan development process. First, the owner/operator of an affected EGU would undertake a feasibility analysis associated with CO<sub>2</sub> transport and storage, as well as site characterization and permitting of potential storage areas. These steps can overlap with each other and the EPA anticipates that, in total, feasibility analyses, site characterization, and permitting of potential storage areas will take 2–3 years to complete. The EPA believes there is significant opportunity to overlap the design and planning phase for CO<sub>2</sub> transport and storage with the engineering and construction phase for transport and storage, which is anticipated to take 2–3 years. Based on the potential to conduct many of the design, planning, permitting, engineering, and construction steps, the EPA thus believes that affected EGUs will need approximately 5 years, from start to finish, to be ready to implement CO<sub>2</sub> transport and storage.

The EPA expects that implementation of natural gas co-firing projects for affected coal-fired steam-generating EGUs, including any necessary construction of natural gas pipelines, can be completed in approximately 3.5 years. As discussed in the *GHG Mitigation Measures for Steam Generating Units* TSD,<sup>616</sup> any necessary boiler modifications to accommodate natural gas co-firing can be completed within 3 years. The process of planning, permitting, and construction for boiler modifications can occur simultaneously with the steps that owners/operators of affected EGUs would need to undertake if construction of a new natural gas pipeline is needed. The time required to develop and construct natural gas laterals can be broken into three phases: planning and design; permitting and approval; and construction. It is

reasonable to assume that the planning and design phase can typically be completed in a matter of months and will often be finalized in less than a year. The time required to complete the permitting and approval phase can vary. Based on a review of recent FERC data, the average time for pipeline projects similar in scope to the projects considered in this TSD is about 1.5 years and would likely not exceed 4 years. The EPA notes that these data may not reflect that pipeline projects may be completed more expeditiously in the presence of a regulatory deadline. Finally, the actual construction could likely be completed in less than 1 year. Based on a sum of these estimates, the EPA believes that 3.5 years is a reasonable timeframe for pipeline projects.

The EPA expects that final emission guidelines will be published in June 2024 and is proposing a State plan submission deadline that is 24 months from publication, which would be June 2026. The proposed compliance date for affected steam generating units is January 1, 2030. The EPA requests comment on whether using a period of 3.5 years after State plan submission is appropriate for establishing a compliance deadline for these emission guidelines. As explained above, the EPA is basing this proposed timeframe on the expectation that some of the initial evaluation and planning steps for both natural gas co-firing and CCS would take place as part of State plan development, *i.e.*, before the State plan submission deadline. The EPA is also requesting comment on potential compliance dates between 1.5 and 5.5 years after State plan submission (*i.e.*, January 1, 2028, to January 1, 2032), including on the feasibility of completing all the steps to implement natural gas co-firing and CCS within a shorter or longer timeframe. To the extent that commenters believe more or less time after State plan submission is more appropriate than the proposed 3.5 years, the EPA requests that commenters provide information supporting the provision of a different compliance date. Additionally, the proposed State plan submission date and proposed compliance date are based on the EPA's anticipation that it will publish final emission guidelines for affected EGUs in June 2024. Should the actual date of publication of the final emission guidelines differ from this target, the EPA will adjust the State plan submission and compliance dates accordingly.

As discussed in section XI.C of this preamble, the EPA is proposing to subcategorize affected existing,

<sup>615</sup> *GHG Mitigation Measures for Steam Generating Units* TSD, chapter 4.7.1. See Table 5 in chapter 4.7.1 for visual representation of the CCS and co-firing project timelines described in this section.

<sup>616</sup> *GHG Mitigation Measures for Steam Generating Units* TSD, chapters 3.2.1.4, 3.2.2.3, and 4.7.1.

frequently used combustion turbines that are covered under these emission guidelines into two subcategories: one subcategory for affected combustion turbine EGUs that adopt the pathway with a standard of performance based on CCS, referred to as the “CCS subcategory” and one subcategory for affected combustion turbine EGUs that adopt the pathway with a standard of performance based on hydrogen co-firing, referred to as the “hydrogen co-fired subcategory.” For affected combustion turbines in the CCS subcategory, the EPA is proposing a compliance date of January 1, 2035, which is the soonest the Agency believes these sources can comply with standards of performance based on installation and operation of CCS, given the timeframes for planning and construction of carbon capture and CO<sub>2</sub> transport and storage systems along with other demands on the infrastructure and resources needed to implement CCS throughout the power sector and the broader economy. For affected combustion turbines in the hydrogen co-fired subcategory, the EPA is proposing a two-phase standard of performance, with a proposed compliance date for the first phase of January 1, 2032, and for the second phase of January 1, 2038.

For combustion turbine EGUs in the CCS subcategory, the same timeframes and considerations discussed for the planning and construction of CCS for affected coal-fired steam generating units apply. That is, the EPA expects that the owners or operators of affected combustion turbines will be able to complete the design, planning, permitting, engineering, and construction steps for the carbon capture and transport and storage systems within 5 years. As with affected coal-fired steam generating units, the EPA believes that States and owners or operators can and would take several of the initial steps in the design and planning processes for combustion turbine EGUs as part of State plan development, *i.e.*, prior to the proposed State plan submission deadline in approximately June 2026.

However, as noted in section XI.C of this preamble, the EPA is projecting approximately 12 GW of coal-fired generation will likely retrofit with CCS in order to meet the proposed January 1, 2030, compliance date for affected long-term coal-fired steam generating units. These and other CCS projects that are likely to be occurring in response to the IRA may take up a significant amount of the capacity to plan and build CCS between 2023 and 2030. The EPA anticipates that additional pipeline

capacity will be constructed ahead of January 1, 2030, for CO<sub>2</sub> transport as well as for natural gas pipeline laterals that may be needed for affected coal-fired steam generating units that will co-fire with natural gas as a control strategy. Due to these and other overlapping demands on the capacity to design, construct, and operate carbon systems as well as pipeline systems, the EPA is proposing to find that a January 1, 2030, compliance date for affected combustion turbine EGUs in the CCS subcategory, although feasible for an individual unit, would not be the most reasonable deadline for all of the units that would need to install CCS. Therefore, the EPA is proposing to provide a compliance date for affected combustion turbine EGUs in the CCS subcategory that is 5 years after the compliance date for long-term coal-fired steam generating units, or January 1, 2035. The EPA requests comment on its proposed compliance deadline for combustion turbine EGUs in the CCS subcategory, including on whether an earlier or later compliance date would be more reasonable given the time needed to analyze, design, and construct carbon capture and CO<sub>2</sub> transport and storage systems and the overlapping timeframes for installation of CCS on EGUs under the proposed CAA section 111(b) standards of performance for new combustion turbines and on existing coal-fired steam generating units under these proposed emission guidelines.

For affected combustion turbine EGUs in the hydrogen co-fired subcategory, the EPA is proposing a compliance deadline for the first phase of January 1, 2032. As discussed in sections VII.F.3.c.v and vi of this preamble, currently the vast majority of hydrogen is not low-GHG hydrogen. Midstream infrastructure limitations and the adequacy and availability of hydrogen storage facilities currently present obstacles and increase prices for delivered low-GHG hydrogen. However, given the growth in the hydrogen sector and Federal funding for DOE’s H2Hubs, which will explicitly explore and incentivize hydrogen distribution, the EPA believes hydrogen distribution and storage infrastructure will not present a barrier to access for new combustion turbines opting to co-fire 30 percent hydrogen by volume in 2032. Legislative actions including the IIJA and IRA, utility initiatives, and industrial sector production and infrastructure projects indicate that sufficient low-GHG hydrogen and sufficient distribution infrastructure can reasonably be expected to be available by this time. On this basis, the EPA is proposing that

compliance with the first phase of the standard, which is based on an affected EGU co-firing 30 percent (by volume) low-GHG hydrogen, will commence on January 1, 2032.

The proposed compliance date of January 1, 2038, for the second phase of the standard of performance for combustion turbine EGUs in the hydrogen co-fired subcategory, which is based on a proposed BSER of 96 percent (by volume) co-firing low-GHG hydrogen, is also based on an assessment of when sufficient quantities of such hydrogen will be available, as well as when turbine vendors are anticipated to have the equipment necessary for higher percentages of hydrogen co-firing available. As discussed in section VII.F.3 of this preamble, the EPA expects that based on technology advances, growing demand for low-GHG hydrogen, and the hydrogen production tax credits available under IRC 45V(b)(2), there will be continued expansion of the hydrogen production and transmission network between 2032 and 2038. The EPA also notes that, based on the current ages of the existing combustion turbine fleet, the number of units that would be expected to meet their standards of performance in 2038 by co-firing 96 percent hydrogen (by volume) is likely to decline. Therefore, the EPA believes it is reasonable to expect that there will be sufficient low-GHG hydrogen in 2038 to provide the quantities needed for both new and affected existing combustion turbines in the hydrogen co-fired subcategory to meet their applicable standards of performance. The EPA requests comment on this assessment, as well as on whether compliance dates other than January 1, 2032, and January 1, 2038, would be more reasonable for the first and second phases of the standards for affected units in the hydrogen co-fired subcategory, and why.

### *C. Requirement for State Plans To Maintain Stringency of the EPA’s BSER Determination*

As explained in section V.C of this preamble, CAA section 111(d)(1) requires the EPA to establish requirements for State plans that, in turn, must include standards of performance for existing sources. Under CAA section 111(a)(1), a standard of performance is “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which . . . the Administrator determines has been adequately demonstrated.” That is, the

EPA has the responsibility to determine the best system of emission reduction for a given category or subcategory of sources and to determine the degree of emission limitation achievable through application of the BSER to affected sources.<sup>617</sup> The level of emission performance required under CAA section 111 is reflected in the EPA's presumptive standards of performance.

States use the EPA's presumptive standards of performance as the basis for establishing requirements for affected sources in their State plans. In order for the EPA to find a State plan "satisfactory," that plan must address each affected source within the State and achieve the level of emission performance that would result if each affected source was achieving its presumptive standard of performance, after accounting for any application of RULOF.<sup>618</sup> That is, while States have the discretion to establish the applicable standards of performance for affected sources in their State plans, the structure and purpose of CAA section 111 require that those plans achieve equivalent stringency as applying the EPA's presumptive standards of performance to each of those sources (again, after accounting for any application of RULOF).

The EPA's December 2022 proposed revisions to the CAA section 111 implementing regulations (40 CFR part 60, subpart Ba) would provide that States are permitted, in appropriate circumstances, to adopt compliance measures that allow their sources to meet their standards of performance in the aggregate.<sup>619</sup> As with the establishment of standards of performance for affected sources, CAA section 111 requires that State plans that include such flexibilities for complying with standards of performance demonstrate equivalent stringency as would be achieved if each affected

source was achieving its standard of performance.

The requirement that State plans achieve equivalent stringency to the EPA's BSER and degree of emission limitation is borne out of the structure and purpose of CAA section 111, which is to mitigate air pollution that is reasonably anticipated to endanger public health or welfare. It achieves this purpose by requiring source categories that cause or contribute to dangerous air pollution to operate more cleanly. Unlike the Clean Air Act's NAAQS-based programs, section 111 is not designed to reach a level of emissions that has been deemed "safe" or "acceptable"; there is no air-quality target that tells States and sources when emissions have been reduced "enough." Rather, CAA section 111 requires affected sources to reduce their emissions to the level that the EPA has determined is achievable through application of the best system of emission reduction, *i.e.*, to achieve emission reductions consistent with the applicable presumptive standard of performance. Consistent with the statutory purpose of requiring affected sources to operate more cleanly, the EPA typically expresses presumptive standards of performance as rate-based emission limitations.

In the course of complying with a rate-based standard of performance under a State plan, an affected source may take an action that removes it from the source category, *e.g.*, by permanently ceasing operations. In this case, the source is no longer subject to the emission guidelines. An affected source may also choose to change its operating characteristics in a way that impacts its overall emissions, *e.g.*, by changing its utilization; however, the source is still required to meet its rate-based standard. In either instance, the changes to one affected source do not implicate the obligations of other affected sources. Although such changes may reduce emissions from the source category, they do not absolve the remaining affected EGUs from the statutory obligation to improve their emission performance consistent with the level that the EPA has determined is achievable through application of the BSER. This fundamental statutory requirement applies regardless of whether a standard of performance is expressed or implemented as a rate- or mass-based emission limitation, or whether standards of performance are achieved on a source-specific or aggregate basis.

In sum, consistent with the respective roles of the EPA and States under CAA section 111, States have discretion to

establish standards of performance for affected sources in their State plans, and to provide flexibilities for affected sources to use in complying with those standards. However, State plans must demonstrate that they ultimately provide for equivalent stringency as would be achieved if each affected source was achieving the applicable presumptive standard of performance, after accounting for any application of RULOF.

#### *D. Establishing Standards of Performance*

CAA section 111(d)(1)(A) provides that "each State shall submit to the Administrator a plan which establishes standards of performance for any existing source"; that plan must also "provide[] for the implementation and enforcement of such standards of performance." That is, States must use the BSER and stringency in the EPA's emission guidelines to establish standards of performance for each existing affected EGU through a State plan.

To assist States in developing State plans that achieve the level of stringency required by the statute, it has been the EPA's longstanding practice to provide presumptively approvable standards of performance or a methodology for establishing such standards. For the purpose of these emission guidelines, the EPA is proposing a methodology for States to use in establishing presumptively approvable standards of performance for affected existing EGUs. Per CAA section 111(a)(1), the basis of this methodology is the degree of emission limitation the EPA has determined is achievable through application of the BSER to each subcategory. The EPA anticipates and intends for most States to apply the presumptive standards of performance to affected EGUs.

Additionally, CAA section 111(d)(1)(B) permits States to take into consideration a particular affected EGU's RULOF when applying a standard of performance to that source. The EPA's proposed revisions to the CAA section 111 implementing regulations at 40 CFR part 60, subpart Ba provide that a State would be able to apply a less stringent standard of performance to an affected EGU when the State can demonstrate that the source cannot reasonably apply the BSER to achieve the degree of emission limitation determined by the EPA. Proposed subpart Ba describes the conditions that would warrant application of a less stringent RULOF standard under these emission guidelines and how a RULOF standard

<sup>617</sup> See, *e.g.*, *West Virginia v. EPA*, 142 S. Ct. 2587, 2607 (2022) ("In devising emissions limits for power plants, EPA first 'determines' the 'best system of emission reduction' that—taking into account cost, health, and other factors—it finds 'has been adequately demonstrated.' The Agency then quantifies 'the degree of emission limitation achievable' if that best system were applied to the covered source.") (internal citations omitted).

<sup>618</sup> As explained in section XI.D.2 of this preamble, States may invoke RULOF to apply a less stringent standard of performance to a particular affected EGU when the state demonstrates that the EGU cannot reasonably apply the BSER to achieve the degree of emission limitation determined by the EPA. In this case, the state plan may not necessarily achieve the same stringency as each source achieving the EPA's presumptive standards of performance because affected EGUs for which RULOF has been invoked would have standards of performance less stringent than the EPA's presumptive standards.

<sup>619</sup> 87 FR 79176, 79207–08 (December 23, 2015).

would be determined. Further detail about how the EPA proposes to implement the RULOF provision in the context of this rulemaking is provided in section XII.D.2 of this preamble.

States also have the authority to apply standards of performance to affected EGUs that are more stringent than the EPA's presumptively approvable standards of performance.<sup>620</sup>

#### 1. Application of Presumptive Standards

This section of the preamble describes the EPA's approach to providing presumptive standards of performance for each of the subcategories of affected EGUs under these emission guidelines, including establishing baseline emission performance. Under this proposal, each subcategory with a proposed BSER and degree of emission limitation would have a corresponding methodology for establishing presumptively approvable standards of performance (also referred to as "presumptive standards of performance" or "presumptive standards").

A State, when establishing standards of performance for affected EGUs in its plan, would identify each affected EGU in the State and specify into which subcategory each EGU falls. The EPA is proposing that the State would then use the corresponding methodology for the given subcategory to calculate and apply the presumptively approvable standard of performance for each affected EGU.

States also have the authority to deviate from the methodology for presumptively approvable standards, in order to apply a more stringent standard of performance through increasing the degree of emission limitation beyond what the EPA has determined to be achievable for units as a general matter (e.g., a State decides that an EGU in the medium-term coal-fired subcategory should co-fire 50 percent natural gas instead of 40 percent). Deviations to increase stringency do not trigger use of the RULOF mechanism, which requires States to demonstrate that an affected EGU cannot reasonably apply the BSER to achieve the degree of emission limitation determination by the EPA.<sup>621</sup> The EPA proposes to presume that standards of performance that are more stringent than the EPA's presumptive standards are "satisfactory" for the purposes of CAA section 111(d).

<sup>620</sup> 40 CFR 60.24a(f). The EPA has proposed to revise this provision to clarify that it has the obligation and authority to review and approve state plans that contain the more stringent requirements. 87 FR 79176, 79204 (December 23, 2022).

<sup>621</sup> 87 FR 79176, 79199 (December 23, 2022).

#### a. Establishing Baseline Emission Performance for Presumptive Standards

For each subcategory, the proposed methodology to calculate a standard of performance entails establishing a baseline of CO<sub>2</sub> emissions and corresponding electricity generation for an affected EGU and then applying the degree of emission limitation achievable through the application of the BSER (as established in section X.D and XI.C of this preamble). The methodology for establishing baseline emission performance for an affected EGU is identical in each of the subcategories but will result in a value that is unique to each affected EGU. To establish baseline emission performance for an affected EGU, the EPA is proposing that a State will use the CO<sub>2</sub> mass emissions and corresponding electricity generation data for a given affected EGU from any continuous 8-quarter period from 40 CFR part 75 reporting within the 5 years immediately prior to the date the final rule is published in the **Federal Register**. This proposed period is based on the NSR program's definition of "baseline actual emissions" for existing electric steam generating units. See 40 CFR 52.21(b)(48)(i). Eight quarters of 40 CFR part 75 data corresponds to a 2-year period, but the EPA is proposing 8 quarters of data as that corresponds to quarterly reporting according to 40 CFR part 75. Functionally, the EPA expects States to utilize the most representative 8-quarter period of data from the 5 years immediately preceding the date the final rule is published in the **Federal Register**. For the 8 quarters of data, the EPA is proposing that a State would divide the total CO<sub>2</sub> emissions (in the form of pounds) over that continuous time period by the total gross electricity generation (in the form of MWh) over that same time period to calculate baseline CO<sub>2</sub> emission performance in lb CO<sub>2</sub> per MWh. As an example, a State establishing baseline emission performance in the year 2023 would start by evaluating the CO<sub>2</sub> emissions and electricity generation data for each of its affected EGUs for 2018 through 2022 and choosing, for each affected EGU, a continuous 8-quarter period that it deems to be the best representation of the operation of that affected EGU. While the EPA will evaluate the choice of baseline periods chosen by States when reviewing State plan submissions, the EPA intends to defer to a State's reasonable exercise of discretion as to which 8-quarter period is representative.

The EPA is proposing to require the use of 8 quarters during the 5-year period prior to the date the final rule is

published in the **Federal Register** as the relevant period for the baseline methodology for a few reasons. First, each affected EGU has unique operational characteristics that affect the emission performance of the EGU (load, geographic location, hours of operation, coal rank, unit size, etc.), and the EPA believes each affected EGU's emission performance baseline should be representative of the source-specific conditions of the affected EGU and how it has typically operated. Additionally, allowing a State to choose (likely in consultation with the owners or operators of affected EGUs) the 8-quarter period for assessing baseline performance can avoid situations in which a prolonged period of atypical operating conditions would otherwise skew the emissions baseline. Relatedly, the EPA believes that by using total mass CO<sub>2</sub> emissions and total electric generation for an affected EGU over an 8-quarter period, any relatively short-term variability of data due to seasonal operations or periods of startup and shutdown, or other anomalous conditions, will be averaged into the calculated level of baseline emission performance. The baseline-setting approach of using total CO<sub>2</sub> mass emissions and total electric generation over an 8-quarter period also aligns with the reporting and compliance requirements. The EPA is proposing that compliance would be demonstrated annually based on the lb CO<sub>2</sub>/MWh emission rate derived by dividing the total reported CO<sub>2</sub> mass emissions by the total reported electric generation for an affected EGU during the compliance year, which is consistent with the expression of the degree of emission limitation proposed for each subcategory in sections X.D.4, X.E.2, and XI.C. The EPA believes that using total mass CO<sub>2</sub> emissions and total electric generation provides a simple and streamlined approach for calculating baseline emission performance without the need to sort and filter non-representative data; any minor amount of non-representative data will be subsumed and accounted for through implicit averaging over the course of the 8-quarter period. Moreover, this approach, by not sorting or filtering the data, eliminates any need for discretion in assessing whether the data is appropriate to use.

The EPA is soliciting comment on the proposed baseline-setting approach and specifically on the applicability of such an approach for each of the different subcategories. The EPA is proposing a continuous 8-quarter period to better average out operating variability but

solicits comment on whether a different time period would be more appropriate for assessing baseline emission performance, as well as on the 5-year window from which the period for baseline emission performance is chosen. The EPA also solicits comment on the use of total mass CO<sub>2</sub> emissions and total electric generation over a consecutive 8-quarter time period as representative and on whether the EPA's proposed approach is appropriate.

The EPA believes that using the proposed baseline-setting approach as the basis for establishing presumptively approvable standards of performance will provide certainty for States, as well as transparency and a streamlined process for State plan development. While this approach is specifically designed to be flexible enough to accommodate unit-specific circumstances, States retain the ability to deviate from the methodologies the EPA is proposing for establishing baselines of emission performance for affected EGUs. The EPA believes that the instances in which a State may need to use an alternate baseline-setting methodology will be limited to anticipated changes in operation, *i.e.*, circumstances in which historical emission performance is not representative of future emission performance. The EPA is proposing that States wishing to vary the baseline calculation for an affected EGU based on anticipated changes in operation, when those changes result in a less stringent standard of performance, must use the RULOF mechanism, which is designed to address such contingencies.

#### b. Presumptive Standards for Steam Generating Units

As described in section X.C of this preamble, the EPA is proposing to first subcategorize affected existing steam generating units by fuel type: coal-fired and oil- or natural gas-fired steam generating units. The EPA is proposing further subcategorization into four subcategories for coal-fired steam generating units and seven subcategories for oil- and natural gas-fired steam generating units. As explained in section X.C.3, the EPA is proposing that an affected coal-fired steam generating unit's operating horizon determines the applicable subcategory in three of the four subcategories; in the case of the near-term subcategory, the operating horizon and load level establish applicability.

The EPA notes that, as explained in section X.C.3 of this preamble, where the owners or operators of affected coal-fired steam-generating units have

elected to commit to permanently cease operation (and, in the case of near-term operating horizon units, to limit their capacity factor) and have also elected to make any such commitments federally enforceable through inclusion in a State plan, a State may rely on such commitments to subcategorize coal-fired steam generating units under these emission guidelines. To be included in a State plan a commitment to cease operations or to limit capacity factor must be enforceable by the State, whether through State rule, agreed order, permit, or other legal instrument.<sup>622</sup> Upon EPA approval of the State plan, that commitment will become federally enforceable.

For affected oil- and natural gas-fired steam generating units, subcategories are defined by load level and the type of fuel fired, as well as locality (*i.e.*, continental and non-continental U.S.). There are four subcategories for oil-fired steam generating units based on different combinations of load level (base load, intermediate load, and low load) and locality, and three subcategories for natural gas-fired steam generating units based on load level (base load, intermediate, and low).

#### i. Long-Term Coal-Fired Steam Generating Units

This section describes the EPA's proposed methodology for establishing presumptively approvable standards of performance for long-term coal-fired steam generating units. Affected coal-fired steam generating units that have either (1) Elected to commit to permanently cease operations on January 1, 2040, or later, or (2) that have not elected to commit to permanently cease operations as part of the State's plan submission, fall within this subcategory and have a proposed BSER of CCS with 90 percent capture and a proposed degree of emission limitation of 90 percent capture of the mass of CO<sub>2</sub> in the flue gas (*i.e.*, the mass of CO<sub>2</sub> after the boiler but before the capture equipment) over an extended period of time and an 88.4 percent reduction in emission rate on a gross basis over an extended period of time. The EPA is proposing that where States use the methodology described here to establish standards of performance for an affected EGU in this subcategory, those established standards would be presumptively approvable when included in a State plan submission. In section X of this preamble, for the long-term coal-fired subcategory, the EPA is soliciting comment on a capture rate of 90 to 95 percent and a degree of

emission limitation defined by a reduction in emission rate on a gross basis from 75 to 90 percent.

Establishing a standard of performance for an affected coal-fired EGU in this subcategory consists of two steps: establishing a source-specific level of baseline emission performance (as described above); and applying the level of stringency, based on the application of the BSER, to that level of baseline emission performance. Implementation of CCS with a capture rate of 90 percent translates to a level of stringency of an 88.4 percent reduction in CO<sub>2</sub> emission rate (see section X.D.4.a of this preamble) compared to the baseline level of emission performance. Using the complement of 88.4 percent (*i.e.*, 11.6 percent) and multiplying it by the baseline level of emission performance results in the presumptively approvable standard of performance. For example, if a long-term coal-fired EGU's level of baseline emission performance is 2,000 lbs per MWh, it will have a presumptively approvable standard of performance of 232 lbs per MWh (2,000 lbs per MWh multiplied by 0.116).

The EPA is also proposing that affected coal-fired EGUs in the long-term subcategory comply with federally enforceable increments of progress, which are described in section XII.D.3.a of this preamble.

The EPA solicits comments on this proposed methodology for calculating presumptively approvable standards of performance for long-term coal-fired steam generating units.

#### ii. Medium-Term Coal-Fired Steam Generating Units

This section describes the EPA's proposed methodology for establishing presumptively approvable standards of performance for medium-term coal-fired steam generating units. Affected coal-fired steam generating units that have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2040, have a proposed BSER of 40 percent co-firing of natural gas. The EPA is proposing that where States use the methodology described here to establish standards of performance for an affected EGU in this subcategory, those established standards of performance would be presumptively approvable when included in a State plan submission.

Establishing a standard of performance for an affected EGU in this subcategory consists of two steps: establishing a source-specific level of baseline emission performance (as described earlier in this preamble); and applying the level of emission reduction

<sup>622</sup> 40 CFR 60.26a.



stringency, based on the application of the BSER, to that level of baseline emission performance. Implementation of natural gas co-firing at a level of 40 percent of total annual heat input translates to a level of stringency of a 16 percent reduction in CO<sub>2</sub> emissions (see section X.D.4.b of this preamble) compared to the baseline level of emission performance. Using the complement of 16 percent (*i.e.*, 84 percent) and multiplying it by the baseline level of emission performance results in the presumptively approvable standard of performance for the affected EGU. For example, if a medium-term coal-fired EGU's level of baseline emission performance is 2,000 lbs per MWh, it will have a presumptively approvable standard of performance of 1,680 lbs per MWh (2,000 lbs per MWh multiplied by 0.84). In section X of this preamble, for the medium-term coal-fired subcategory, the EPA is soliciting comment on a natural gas co-firing level of 30 to 50 percent and a degree of emission limitation from 12 to 20 percent.

For medium-term coal-fired steam generating units that have an amount of co-firing that is reflected in the baseline operation, the EPA is proposing that States account for such preexisting co-firing in adjusting the degree of emission limitation. If, for example, an EGU co-fires natural gas at a level of 10 percent of the total annual heat input during the applicable 8-quarter baseline period, the corresponding degree of emission limitation would be adjusted to 12 percent (*i.e.*, an additional 30 percent of natural gas by heat input) to reflect the preexisting level of natural gas co-firing. This results in a standard of performance based on the degree of emission limitation achieving an additional 30 percent co-firing beyond the 10 percent that is accounted for in the baseline. The EPA believes this approach is a more straightforward mathematical adjustment than adjusting the baseline to appropriately reflect a preexisting level of co-firing. However, the EPA solicits comment on whether the adjustment of a standard of performance based on preexisting levels of natural gas co-firing should be done through the baseline. To adjust the baseline to account for preexisting natural gas co-firing, the State would need to calculate a baseline of emission performance for an EGU that removes the mass emissions and electric generation that are attributable to the natural gas portion of the fuel. With this adjusted baseline that removes the natural gas-fired portion, the presumptive standard of performance

would be calculated by multiplying the adjusted baseline by the degree of emission limitation factor that reflects 40 percent co-firing. The EPA is not proposing this methodology, because parsing the attributable emissions and electric generation associated with natural gas co-firing from the attributable emissions and electric generation associated with coal-fired generation requires manipulation of the emissions and electric generation data. However, the EPA solicits comment on whether baseline adjustment is more appropriate and also why that may be so.

The standard of performance for the medium-term coal-fired subcategory is based on the degree of emission limitation that is achievable through application of the BSER to the affected EGUs in the subcategory and consists exclusively of the rate-based emission limitation. However, to qualify for inclusion in the subcategory an affected coal-fired steam generating unit must have elected to commit to permanently cease operations prior to January 1, 2040. If a State decides to rely on such a commitment to place an affected EGU into the medium-term coal-fired subcategory by making it an enforceable element of its State plan, the commitment to cease operations will become federally enforceable upon EPA approval of the plan.

The EPA is proposing that affected coal-fired EGUs that elect to commit to dates to permanently cease operations for subcategory applicability, including EGUs in the medium-term coal-fired subcategory, have corresponding federally enforceable milestones with which they must comply. The EPA intends these milestones to assist affected EGUs in ensuring they are completing the necessary steps to comply with their State plan and commitments to dates to permanently cease operations. These milestones are described in detail in section XII.D.3.b of this preamble. Affected EGUs in this subcategory would also be required to comply with the federally enforceable increments of progress described in section XII.D.3.a of this preamble.

The EPA solicits comment on the proposed methodology for calculating presumptively approvable standards of performance for medium-term coal-fired steam generating units, including on the proposed approach for adjusting a presumptively approvable standard of performance to accommodate preexisting natural gas co-firing.

iii. Imminent-Term Coal-Fired Steam Generating Units

This section describes the EPA's proposed methodology for establishing presumptively approvable standards of performance for imminent-term coal-fired steam generating units. Affected coal-fired steam generating units that elect to commit to permanently cease operations before January 1, 2032, have a proposed BSER of routine methods of operation and maintenance. Therefore, the proposed presumptively approvable standard of performance is not to exceed the baseline emission performance of the affected EGU (as described in section XII.D.1.a of this preamble).

Unlike the proposed standards of performance for the long-term and medium-term coal-fired steam generating units, establishing a standard of performance for an affected EGU in the imminent-term subcategory consists of just one step. The EPA is proposing that where States use the methodology described in section XII.D.1.a of this preamble to establish the baseline level of emission performance for an affected EGU, the emission rate described by that baseline would constitute the presumptively approvable standard of performance. This standard of performance reflects that the proposed BSER for these affected EGUs is routine methods of operation and maintenance and a degree of emission limitation equivalent to no increase in emission rate from the baseline level of emission performance. This also ensures that the affected EGU will not backslide in its emission performance.

Although the EPA believes that the baseline performance level adequately accounts for variability in annual emission rate, the EPA is also soliciting comment on a methodology for a presumptive standard above the baseline emission performance. For the imminent-term coal-fired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.

Because the EPA is soliciting comment on a potential BSER for this subcategory based on low levels of natural gas co-firing, as described in section X.D.3.b.ii, comment is also being solicited on the presumptively approvable standards for that potential BSER. The BSER is based on the maximum hourly heat input of natural gas fired in the unit (MMBtu/hr) relative to the maximum hourly heat input the

unit is capable of (*i.e.*, the nameplate capacity on an MMBtu/hr basis). The EPA is soliciting comment on the baseline natural gas co-firing level being determined from the 5 years of data preceding the publication of the final rule, or based on engineering limitations (*i.e.*, extent of startup guns or size of pipeline to unit). That percent of heat input results in percent reductions from the emission performance baseline equivalent to the percent of heat input times 0.4. Adjustments relative to current co-firing levels may be accounted for in a manner consistent with section XII.D.1.b.ii. Alternatively, the EPA is soliciting comment on a degree of emission limitation on a fuel heat input basis. For a potential BSER of low levels of natural gas co-firing, the EPA is therefore also soliciting comment on a presumptively approvable standard defined on a heat input basis.

The standard of performance for the imminent-term coal-fired subcategory is based on the degree of emission limitation that is achievable through application of the BSER to the affected EGUs in the subcategory and consists exclusively of the rate-based emission limitation. However, to qualify for inclusion in the subcategory an affected coal-fired EGU must have elected to commit to permanently cease operations prior to January 1, 2032. If a State decides to rely on such a commitment to place an affected EGU into the imminent-term coal-fired subcategory by making it an enforceable element of its State plan, the commitment to cease operations will become federally enforceable upon EPA approval of the plan.

The EPA is also proposing that affected coal-fired steam generating units that have elected to commit to dates to permanently cease operations for subcategory applicability, including EGUs in the imminent-term coal-fired subcategory, have corresponding federally enforceable milestones with which they must comply. The EPA intends these milestones to assist affected EGUs in ensuring they are completing the necessary steps to comply with these dates in their State plan. These milestones are described in detail in section XII.D.3.b of this preamble.

The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for imminent-term coal-fired steam generating units.

#### iv. Near-Term Coal-Fired Steam Generating Units

Similar to the proposed approach for establishing presumptively approvable

standards of performance for affected EGUs in the imminent-term coal-fired subcategory, the EPA is proposing that affected EGUs in the near-term coal-fired subcategory have a presumptively approvable standard of performance based on the baseline emission performance of the affected EGU (as described in section XII.D.1.a of this preamble). The near-term subcategory includes affected coal-fired steam generating units that have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2035, and that have elected to adopt an annual capacity factor limitation of 20 percent.

The EPA is proposing that where States use the methodology described in section XII.D.1.a of this preamble to establish the baseline level of emission performance for an affected EGU, the emission rate described by that baseline would constitute the presumptively approvable standard of performance. This standard of performance reflects the proposed BSER of routine methods of operation and maintenance and a degree of emission limitation equivalent to no increase in emission rate. This also ensures that the affected EGU will not backslide in its emission performance.

For the near-term coal-fired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.

Because the EPA is soliciting comment on a potential BSER for this subcategory based on low levels of natural gas co-firing, as described in section X.D.3.b.ii, comment is also being solicited on the presumptively approvable standards for that potential BSER. The BSER is based on the maximum hourly heat input of natural gas fired in the unit (MMBtu/hr) relative to the maximum hourly heat input the unit is capable of (*i.e.*, the nameplate capacity on an MMBtu/hr basis). The EPA is soliciting comment on the baseline natural gas co-firing level being determined from the 5 years of data preceding the publication of the final rule, or based on engineering limitations (*i.e.*, extent of startup guns or size of pipeline to unit). That percent of heat input results in percent reductions from the emission performance baseline equivalent to the percent of heat input times 0.4. Adjustments relative to current co-firing levels may be accounted for in a manner consistent with section XII.D.1.b.ii. Alternatively,

the EPA is soliciting comment on a degree of emission limitation on a fuel heat input basis. For a potential BSER of low levels of natural gas co-firing, the EPA is therefore also soliciting comment on a presumptively approvable standard defined on a heat input basis.

The standard of performance for the near-term coal-fired subcategory is based on the degree of emission limitation that is achievable through application of the BSER to the affected EGUs in the subcategory and consists exclusively of the rate-based emission limitation. However, to qualify for inclusion in the subcategory an affected coal-fired EGU must have elected to commit to permanently cease operations after December 31, 2031, and before January 1, 2035, and must have elected to adopt an annual capacity factor limitation of 20 percent. If a State decides to rely on such commitments to place an affected EGU into the near-term coal-fired subcategory by making them enforceable elements of its State plan, the commitments to cease operations and to limit its capacity factor will become federally enforceable upon EPA approval of the plan.

The EPA is also proposing that affected coal-fired EGUs that have elected to commit to dates to permanently cease operations for subcategory applicability, including EGUs in the near-term coal-fired subcategory, have corresponding federally enforceable milestones with which they must comply. The EPA intends these milestones to assist affected EGUs in ensuring they are completing the necessary steps to comply with these dates in their State plan. These milestones are described in detail in section XII.D.3.b of this preamble.

The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for near-term coal-fired steam generating units.

#### v. Natural Gas-Fired Steam Generating Units and Continental Oil-Fired Steam Generating Units

This section describes the EPA's proposed methodology for presumptively approvable standards of performance for affected natural gas-fired and continental oil-fired steam generating units: low load natural gas-fired steam generating units, intermediate load natural gas-fired steam generating units, base load natural gas-fired steam generating units, low load oil-fired steam generating units, intermediate load continental oil-fired steam generating units, and base load continental oil-fired steam

generating units. It does not address non-continental intermediate oil-fired and non-continental base load oil-fired steam generating units, which are described in section XII.D.1.b.vi of this preamble. The proposed definitions of these subcategories are discussed in section X.C.2 of this preamble. The proposed presumptive standards of performance are based on degrees of emission limitation that units are currently achieving, consistent with the proposed BSER of routine methods of operation and maintenance, which amounts to a proposed degree of emission limitation of no increase in emission rate.

Unlike the approach to establishing presumptive standards of performance for coal-fired EGUs in these proposed emission guidelines, the EPA is proposing presumptive standards of performance for affected natural gas-fired and continental oil-fired steam generating units in lieu of methodologies that States would use to establish presumptive standards of performance. This is largely because the low variability in emissions data at intermediate and base load for these units and relatively consistent performance between these units at those load levels, as discussed in section X.E of this preamble and detailed in the *Natural Gas- and Oil-fired Steam Generating Unit* TSD, allows for the identification of a generally applicable standard of performance.

However, for natural gas- or oil-fired steam generating units with low annual capacity factors, annual emission rates can be high (greater than 2,500 lb CO<sub>2</sub>/MWh-gross) and can vary considerably across units and from year to year. Despite their relatively high emission rates, though, overall emissions from these units are low. Based on these considerations, the EPA is not proposing a BSER or that States establish standards of performance for these units at this time. However, as noted above, the EPA is soliciting comment on determining a BSER of uniform fuels for these units. In addition, the EPA is soliciting comment on a presumptive standard of performance for these units based on heat input. Specifically, the EPA is soliciting comment on a range of presumptive standards of performance from 120 to 130 lb CO<sub>2</sub>/MMBtu for low load natural gas-fired steam generating units, and from 160 to 170 lb CO<sub>2</sub>/MMBtu for low load oil-fired steam generating units.

For intermediate load natural gas-fired units (annual capacity factors greater than or equal to 8 percent and

less than 45 percent), annual emission rates are less than 1,500 lb CO<sub>2</sub>/MWh-gross for about 90 percent of the units. Therefore, the EPA is proposing the presumptive standard of performance of an annual calendar-year emission rate of 1,500 lb CO<sub>2</sub>/MWh-gross for these units.

For base load natural gas-fired units (annual capacity factors greater than or equal to 45 percent), annual emission rates are less than 1,300 lb CO<sub>2</sub>/MWh-gross for about 80 percent of units. Therefore, the EPA is proposing the presumptive standard of performance of an annual calendar-year emission rate of 1,300 lb CO<sub>2</sub>/MWh-gross for these units.

In the continental U.S., there are few if any oil-fired steam generating units that operate with intermediate or high utilization. Liquid-oil-fired steam generating units with 24-month capacity factors less than 8 percent do qualify for a work practice standard in lieu of emission requirements under the Mercury and Air Toxics Standards rule (MATS) (40 CFR 63, subpart UUUUU). If oil-fired units operated at higher annual capacities, it is likely they would do so with substantial amounts of natural gas firing and have emission rates that are similar to steam generating units that fire only natural gas at those levels of utilization. There are a few natural gas-fired steam generating units that are near the threshold for qualifying as oil-fired units (*i.e.*, firing more than 15 percent oil in a given year) but that on average fire more than 90 percent of their heat input from natural gas. Therefore, the EPA is proposing the same presumptive standards of performance for oil-fired steam generating units as for natural gas-fired units, noted above.

The EPA is also taking comment on a range of presumptive standards of performance for natural gas- and oil-fired steam generating units. Specifically, the EPA is soliciting comment on standards between (1) 1,400 and 1,600 lb CO<sub>2</sub>/MWh-gross for intermediate load natural gas-fired units, (2) 1,250 and 1,400 lb CO<sub>2</sub>/MWh-gross for base load natural gas-fired units, (3) 1,400 and 2,000 lb CO<sub>2</sub>/MWh-gross for intermediate load oil-fired units, and (4) 1,250 and 1,800 lb CO<sub>2</sub>/MWh-gross for base load oil-fired units. The upper end of the ranges for oil-fired units is higher because of the limited data available for oil-fired units that operate at those annual capacity factors.

#### vi. Non-Continental Oil-Fired Steam Generating Units

The EPA is proposing that for affected EGUs in the non-continental intermediate oil-fired and non-continental base load oil-fired

subcategory, a presumptively approvable standard of performance would be based on baseline emission performance, consistent with the EPA's proposed BSER determination of routine methods of operation and maintenance and the proposed degree of emission limitation of no increase in emission rate. The EPA is proposing that where States use the methodology described in section XII.D.1.a of the preamble to establish unit-specific baseline levels of emission performance for affected EGUs in this subcategory, those emission rates would constitute presumptively approvable standards of performance when included in a State plan submission. This standard of performance would ensure no increase in the unit-specific emission rate from the baseline level of emission performance.

For the intermediate and base load non-continental oil-fired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.

The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for non-continental oil-fired steam generating units in the intermediate and base load subcategories.

#### c. Presumptive Standards for Combustion Turbines

As described in section XI.C, the EPA is proposing to define affected existing combustion turbines under these emission guidelines as units with a capacity greater than 300 MW and an annual capacity factor of greater than 50 percent. Within this set of units, the EPA is proposing two subcategories based on the type of fuel used: existing combustion turbines that adopt the pathway with a standard of performance based on CCS, referred to as the "CCS subcategory" and existing combustion turbines that adopt the pathway with a standard of performance based on hydrogen co-firing, referred to as the "hydrogen co-fired subcategory." States, in their State plan submissions, would be required to assign existing combustion turbine EGUs with capacities greater than 300 MW and the ability to operate at an annual capacity factor of greater than 50 percent to one

subcategory or the other.<sup>623</sup> States would then be required to include in their plans the presumptive standard of performance corresponding to the appropriate subcategory for each affected existing combustion turbine EGU. As discussed in section XII.D.2 of this preamble, States, in applying a standard of performance to a particular affected existing combustion turbine EGU, also have discretion to consider that EGU's remaining useful life and other factors.

However, the EPA anticipates that some existing combustion turbine EGUs that are greater than 300 MW do not intend to operate at an annual capacity factor of greater than 50 percent starting in 2032 (the first proposed compliance date for affected existing combustion turbine EGUs under these emission guidelines). Such an EGU may elect to commit to an enforceable annual capacity factor limitation of less than or equal to 50 percent. If a State elects to include such an enforceable commitment in its State plan, the State would not be required to have a standard of performance for that particular combustion turbine EGU in its plan. Otherwise, each affected existing combustion turbine that is greater than 300 MW and that has the ability to operate at an annual capacity factor of greater than 50 percent must have a subcategory designation and standard of performance in the State plan.

The EPA is proposing that States may structure the requirements for affected combustion turbine EGUs in their State plans so that the applicable standard of performance must be met for years in which the unit operates above the 50 percent annual capacity factor threshold. States and the owners or operators of affected EGUs that have such contingent standards of performance would be required to ensure that an affected EGU has complied with its standard of performance for each calendar year in which it has operated at an annual capacity factor of greater than 50 percent. The EPA expects that if the owner or operator of an affected combustion turbine EGU that has a standard of performance believes there is a chance the EGU will operate at an annual capacity factor of greater than 50

percent in the upcoming compliance period, it will plan to meet that standard. Given this practical reality, the EPA is taking comment on whether it should require that once an affected existing combustion turbine EGU has exceeded the 50 percent annual capacity factor threshold and triggered application of its standard of performance for a given compliance period, that EGU must continue to meet its standard in subsequent compliance periods.

#### i. Carbon Capture and Storage Existing Combustion Turbine Generating Units

This section describes the EPA's proposed methodology for establishing presumptively approvable standards of performance for existing combustion turbine EGUs that adopt the pathway with a standard of performance based on CCS. Affected EGUs that are assigned to this subcategory have a proposed BSER of CCS with 90 percent capture and a proposed degree of emission limitation of 90 percent capture of the mass of CO<sub>2</sub> in the flue gas (*i.e.*, the mass of CO<sub>2</sub> after the turbine but before the capture equipment) over an extended period of time and an 89 percent reduction in emission rate on a gross basis over an extended period of time. The EPA is proposing that where States use the methodology described here to establish standards of performance for an affected EGU in this subcategory, those established standards would be presumptively approvable when included in a State plan submission.

Establishing a standard of performance for an affected combustion turbine EGU in this subcategory consists of two steps: establishing a source-specific level of baseline emission performance (as described above); and applying the level of stringency, based on the application of the BSER, to that level of baseline emission performance. Implementation of CCS with a capture rate of 90 percent translates to a level of stringency of an 89 percent reduction in CO<sub>2</sub> emission rate (see section XI.C of this preamble) compared to the baseline level of emission performance. Using the complement of 89 percent (*i.e.*, 11 percent) and multiplying it by the baseline level of emission performance results in the presumptively approvable standard of performance. For example, if a combustion turbine EGU in this subcategory has a baseline level of emission performance of 1,000 lbs per MWh, it will have a presumptively approvable standard of performance of 110 lbs per MWh (1,000 lbs per MWh multiplied by 0.11).

The EPA is also proposing that affected combustion turbines in this subcategory comply with federally enforceable increments of progress, which are described in section XII.D.3.a of this preamble.

The EPA solicits comments on this proposed methodology for calculating presumptively approvable standards of performance for existing combustion turbines in the CCS subcategory.

#### ii. Hydrogen Co-Fired Existing Combustion Turbine Generating Units

This section describes the EPA's proposed methodology for establishing presumptively approvable standards of performance for existing combustion turbines that adopt the pathway with a standard of performance based on hydrogen co-firing. Affected combustion turbine EGUs in this subcategory have a proposed BSER of hydrogen co-firing with two phases of stringency. In the first phase, affected EGUs in this subcategory co-fire hydrogen at a level of 30 percent by volume with a proposed degree of emission limitation of 12 percent reduction in emission rate on a gross basis over an extended period of time. In the second phase, affected EGUs in this subcategory co-fire hydrogen at a level of 96 percent by volume with a proposed degree of emission limitation of 88.4 percent reduction in emission rate on a gross basis over an extended period of time. As described in section XII.B, compliance with the first phase commences on January 1, 2032, and compliance with the second phase commences on January 1, 2038. The EPA is proposing that where States use the methodology described here to establish standards of performance for this subcategory, those established standards of performance would be presumptively approvable when included in a State plan submission.

Establishing a standard of performance for an affected EGU in this subcategory consists of three steps: first, establishing a source-specific level of baseline emission performance (as described earlier in this preamble); and second, applying the level of emission reduction stringency for the first phase, based on the application of the first phase BSER, to that level of baseline emission performance; and third, applying the level of emission reduction stringency for the second phase, based on the application of the second phase BSER, to that level of baseline emission performance.

Implementation of hydrogen co-firing at a level of 30 percent by volume translates to a level of stringency of a 12 percent reduction in CO<sub>2</sub> emissions (see

<sup>623</sup> As explained in section XI.D of this preamble, the EPA is soliciting comment on, *inter alia*, whether to finalize both the CCS and hydrogen co-fired pathways for existing combustion turbines or whether to finalize a BSER determination with a single pathway. If the EPA does not finalize the proposed two-pathway approach, the state plan requirements for existing combustion turbines in this section XII of the preamble will be updated accordingly for the final rule.

section XI.C of this preamble) compared to the baseline level of emission performance. Using the complement of 12 percent (*i.e.*, 88 percent) and multiplying it by the baseline level of emission performance results in the presumptively approvable standard of performance for the affected EGU. For example, if a combustion turbine EGU that co-fires 30 percent hydrogen (by volume) has a baseline level of emission performance of 1,000 lbs per MWh, it will have a presumptively approvable standard of performance of 880 lbs per MWh (1,000 lbs per MWh multiplied by 0.88) for the first phase.

Implementation of hydrogen co-firing at a level of 96 percent by volume translates to a level of stringency of an 88.4 percent reduction in CO<sub>2</sub> emissions (see section XI.C of this preamble) compared to the baseline level of emission performance. Using the complement of 88.4 percent (*i.e.*, 11.6 percent) and multiplying it by the baseline level of emission performance results in the presumptively approvable standard of performance for the affected EGU. For example, if a combustion turbine EGU that co-fires 96 percent hydrogen (by volume) has a baseline level of emission performance of 1,000 lbs per MWh, it will have a presumptively approvable standard of performance of 116 lbs per MWh (1,000 lbs per MWh multiplied by 0.116) for the second phase.

The EPA is proposing that affected combustion turbine EGUs in this subcategory that meet their standards of performance using hydrogen co-firing must co-fire with low-GHG hydrogen. States must make this an enforceable part of their State plans, as described in further detail in section XII.F.1.b.i.

The EPA is also proposing that affected combustion turbines in this subcategory comply with federally enforceable increments of progress, which are described in section XII.D.3.a of this preamble.

The EPA solicits comment on the proposed methodology for calculating presumptively approvable standards of performance for existing combustion turbine EGUs in the hydrogen co-fired subcategory.

## 2. Remaining Useful Life and Other Factors

Under CAA section 111(d), the EPA is required to promulgate regulations under which States submit plans applying standards of performance to affected EGUs. While States establish the standards of performance, there is a fundamental obligation under CAA section 111(d) that such standards reflect the degree of emission limitation

achievable through the application of the BSER, as determined by the EPA.<sup>624</sup> The EPA identifies this degree of emission limitation as part of its emission guideline. 40 CFR 60.22a(b)(5). Thus, as described in section X.D of this preamble, the EPA is providing proposed methodologies for States to follow in determining and applying presumptively approvable standards of performance to affected EGUs in each of the subcategories covered by these emission guidelines.

While standards of performance must generally reflect the degree of emission limitation achievable through application of the BSER as determined by the EPA, CAA section 111(d)(1) also requires that the EPA regulations permit the States, in applying a standard of performance to a particular designated facility, to “take into consideration, among other factors, the remaining useful life of the existing sources to which the standard applies.” The EPA’s implementing regulations under 40 CFR 60.24a thus allow a State to consider a particular designated facility’s remaining useful life and other factors in applying to that facility a standard of performance that is less stringent than the presumptive level of stringency given in an emission guideline.

In December 2022, the EPA proposed to clarify the existing requirements in subpart Ba governing what a State must demonstrate in order to invoke RULOF and provide a less stringent standard of performance when submitting a State plan.<sup>625</sup> Specifically, the EPA proposed to require the State to demonstrate that a particular facility cannot reasonably achieve the degree of emission limitation achievable through application of the BSER based on one or more of three delineated circumstances, and proposed to clarify those three circumstances. The EPA also proposed additions and further clarifications to the process of invoking RULOF and determining a standard of performance based on RULOF, to ensure that use of the provision does not undermine the overall presumptive level of stringency of the BSER, as well as to provide a clear analytical framework for States and the regulated community as they

seek to craft satisfactory plans that the EPA can ultimately approve.<sup>626</sup>

The EPA is not soliciting comment in this rulemaking on the proposed revisions to the RULOF provisions in subpart Ba, which are subject to a separate rulemaking process. As noted in section XII.A of this preamble, the EPA intends to finalize revisions to subpart Ba prior to finalizing these emission guidelines. Those revised RULOF provisions, including any changes made in response to public comments, will apply to these emission guidelines. While the EPA is not taking comment on the proposed provisions of subpart Ba themselves, the EPA is requesting comment on how each of the RULOF provisions that the EPA proposed in December 2022 would be implemented in the context of these particular emission guidelines.

The remainder of this section of the preamble addresses how the requirements associated with RULOF, as the EPA has proposed to revise them, would apply to States and State plans under these emission guidelines. First, it addresses the threshold requirements for considering RULOF and how those requirements would apply to an affected EGU under these emission guidelines. Second, it addresses how, if a State has appropriately invoked RULOF for a particular affected EGU under the previous step, it would be required to determine a source-specific BSER and calculate a standard of performance for that affected EGU. Third, it discusses the proposed requirement for plans that apply less stringent standards of performance pursuant to RULOF to consider the potential pollution impacts and benefits of control to communities most affected by and vulnerable to emissions from the affected EGU. Fourth, this section addresses the proposed provisions for the standard for EPA review of State plans that include RULOF standards of performance. And, finally, it discusses the EPA’s proposed interpretation of the Clean Air Act as laid out in the proposed revisions to subpart Ba that the Act allows states to adopt and enforce standards of performance more stringent than required by an applicable emission guideline, and that the EPA has the ability and authority to approve such standards of performance into State plans.

### a. Threshold Requirements for Considering RULOF

As discussed earlier in this preamble, CAA section 111(d)(1) expressly

<sup>624</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2607 (2022) (“In devising emissions limits for power plants, EPA first ‘determines’ the ‘best system of emission reduction’ that—taking into account cost, health, and other factors—it finds ‘has been adequately demonstrated.’ The Agency then quantifies ‘the degree of emission limitation achievable’ if that best system were applied to the covered source.”) (internal citations omitted).

<sup>625</sup> 87 FR 79176, 79196–79206 (December 23, 2022).

<sup>626</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002.

requires the EPA to permit states to consider RULOF when applying a standard of performance to a particular affected EGU. The EPA's proposed revisions to the regulations governing states' use of RULOF would provide a clear analytical framework to ensure that its use to apply less stringent standards of performance for particular sources is consistent across states. The proposed revisions would also ensure that the use of RULOF does not undermine the overall presumptive level of stringency and the emission reduction benefits of an emission guideline, or undermine and render meaningless the EPA's BSER determination. Such a result would be contrary to the overarching purpose of CAA section 111(d), which is generally to achieve meaningful emission reductions from designated facilities, in this case affected EGUs, based on the BSER in order to mitigate pollution that endangers public health and welfare.

To this end, proposed subpart Ba would provide that a State may apply a less stringent standard of performance to a particular facility, taking into consideration remaining useful life and other factors, provided that the State demonstrates with respect to that facility (or class of facilities) that it cannot reasonably apply the BSER to achieve the degree of emission limitation determined by the EPA. Invocation of RULOF would be required to be based on one or more of three circumstances: (1) Unreasonable cost of control resulting from plant age, location, or basic process design, (2) physical impossibility or technical infeasibility of installing necessary control equipment, or (3) other circumstances specific to the facility that are fundamentally different from the information considered in the determination of the BSER in the emission guidelines.<sup>627</sup>

A State wishing to invoke RULOF in order to apply a less stringent standard to a particular affected EGU would be required to demonstrate that there are fundamental differences between that EGU and the EPA's BSER determination, based on consideration of the BSER factors that the EPA considered in its analysis. In determining the BSER and the degree of emission reductions achievable through application of the BSER in these proposed emission guidelines, the EPA considered whether a system of emission reduction is adequately

demonstrated for the subcategory based on the physical possibility and technical feasibility of applying that system, the costs of a system of emission reduction, the non-air quality health and environmental impacts and energy requirements associated with a system of emission reduction, and the extent of emission reductions from a system.<sup>628</sup>

For each subcategory, the EPA evaluated certain metrics related to each of these BSER factors. For example,<sup>629</sup> in evaluating the costs associated with CCS and natural gas co-firing for existing coal-fired steam generating units, the EPA considered both \$/ton CO<sub>2</sub> reduced and increases in levelized costs expressed as dollars per MWh electricity generation. A State wishing to invoke RULOF for a particular affected EGU in the long-term coal-fired subcategory based on unreasonable cost of control would also be required to consider the cost as \$/ton of CO<sub>2</sub> reduced and \$/MWh electricity generated. The State would further have to demonstrate that the costs, as represented by these two metrics, for the particular affected EGU are fundamentally different, *i.e.*, significantly higher, than costs the EPA determines to be reasonable due to that EGU's age, location, or basic process design.

The RULOF provision, currently and as the EPA has proposed to revise it, also allows states to invoke RULOF based on other circumstances specific to an affected EGU. As an illustrative example, a State may wish to invoke RULOF for a medium-term coal-fired steam generating unit that is extremely isolated (*e.g.*, on a small island more than 200 miles offshore) such that it would require construction of an LNG terminal and shipping of LNG by barge to have natural gas available to fire at the unit. In the EPA's evaluation of natural gas co-firing as the potential BSER for medium-term coal-fired steam generating units, the EPA considered the distance and cost of lateral pipeline builds in proposing natural gas co-firing as BSER. If a State can demonstrate that something unique to the source's being on a remote island—something that the EPA did not consider in evaluating the BSER—results in the affected EGU not being able to reasonably achieve the

standard of performance, then it may be reasonable to invoke RULOF for that source.

Under the EPA's proposed approach, states would not be able to invoke RULOF based on minor, non-fundamental differences between a particular affected EGU and what the EPA determined was reasonable for the BSER. There could be instances in which an affected EGU may not be able to implement the presumptively approvable standard of performance in accordance with the precise metrics (*e.g.*, at exactly the same \$/ton CO<sub>2</sub> reduced or exactly the same distance from a pipeline connection) of the BSER determination but is able to do so within a reasonable margin. In such instances, it would not be reasonable for a State to apply a less stringent standard of performance.

Many of the factors the EPA considers in its BSER determination, and therefore many of the factors states might consider in determining whether to invoke RULOF for any particular source, are reflected in the cost consideration. As noted previously in this section, the EPA is providing a range of cost evaluations for CCS and natural gas co-firing based on different assumptions regarding amortization period and capacity factor. For example, the EPA is proposing to determine that the cost of CCS for long-term coal-fired steam generating units is reasonable based on the following calculations: for a reference unit with a 12-year amortization period and 50 percent capacity factor the cost is \$14/ton CO<sub>2</sub> reduced or \$12/MWh, and that the average cost for the fleet under the same assumptions is \$8/ton CO<sub>2</sub> or \$7/MWh. For natural gas co-firing for medium-term coal-fired steam generating units, the EPA is proposing to find the following costs are reasonable: for a reference unit with a 50 percent capacity factor and an amortization period ranging from 6 to 10 years, a cost of \$53–\$66/ton CO<sub>2</sub> or \$9–\$12/MWh. The average cost for the fleet under the same assumptions is \$64–\$78/ton CO<sub>2</sub> or \$11–\$14/MWh.

Any costs associated with any BSER for affected EGUs that the EPA determines are reasonable under these emission guidelines cannot be a basis for invoking RULOF. Additionally, costs that are not fundamentally different from costs that the EPA has determined are or could be reasonable for sources cannot be a basis for invoking RULOF. Thus, costs that are not fundamentally different from, *e.g.*, \$29/MWh (the cost for installation of wet-FGD on a 300 MW coal-fired steam generating unit, used for cost comparison in section X.D.1.a.ii

<sup>628</sup> The EPA also considered impacts on the energy sector as part of its BSER determinations. However, because this consideration does not apply at the level of a particular affected EGU, it would not be appropriate basis for invoking RULOF.

<sup>629</sup> The examples are only for illustrative purposes and should not be interpreted to represent the difference that must exist to demonstrate a fundamental difference between the EPA's BSER determination and a particular affected EGU's circumstances.

<sup>627</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (containing proposed revisions to RULOF provisions at 40 CFR 60.24a(e)-(n)).

of this preamble and detailed in section VII.F.3.b.iii(B)(5) of this preamble) are not a basis for invoking RULOF under these emission guidelines. On the other hand, costs that constitute outliers, *e.g.*, that are greater than the 95th percentile of costs on a fleetwide basis (assuming a normal distribution) or that are the same as costs the EPA has determined are unreasonable elsewhere under these emission guidelines would likely represent a valid demonstration of a fundamental difference and could be the basis of invoking RULOF.

Importantly, the costs evaluated in the BSER determination are, in general, for representative, average units or are based on average values across the fleet of steam generating units. Those BSER cost analysis values represent the average of a distribution of costs including costs that are above or below the average representative value. On that basis, implicit in the proposed determination that those average representative values are reasonable is a proposed determination that a significant portion of the unit-specific costs around those average representative values are also reasonable, including some portion of those unit-specific costs that are above but not significantly different than the average representative values.

Another example of a fundamental difference between the EPA's BSER determination and a particular affected EGU's circumstances could be a difference based on physical impossibility or technical infeasibility. In making BSER determinations, the EPA must find that a system is adequately demonstrated; among other things, this means that the BSER must be technically feasible for the source category. For long-term coal-fired steam generating units and combustion turbine EGUs in the CCS subcategory, the EPA determined that CCS is adequately demonstrated because its components can be and have been applied to the source category and because it is generally geographically available to affected EGUs. However, it may be possible that a particular affected EGU is physically unable to implement CCS due to, *e.g.*, the impossibility of constructing a pipeline or establishing other means for CO<sub>2</sub> transport. If a State can demonstrate that it is physically impossible or technically infeasible for this affected EGU to apply CCS because there are no other options to transport captured CO<sub>2</sub>, there is a fundamental difference between the EPA's BSER determination and the circumstances of this particular affected EGU and the State may invoke RULOF.

The EPA has proposed under 40 CFR part 60, subpart Ba that states may invoke RULOF if they can demonstrate that a source cannot apply the BSER to achieve the degree of emission limitation determined by the EPA based on one or more of the three circumstances discussed earlier in this preamble.<sup>630</sup> It thus follows that states would be able to invoke RULOF under these emission guidelines if they can demonstrate that an affected EGU can apply the BSER but cannot achieve the degree of emission limitation that the EPA determined is possible for the source category generally.

However, the EPA has also proposed in subpart Ba<sup>631</sup> that a State may not invoke RULOF to provide a less stringent standard of performance for a particular source if that source cannot apply the BSER but can reasonably implement a different system of emission reduction to achieve the degree of emission limitation required by the EPA's BSER determination. While a State may be able to demonstrate that the source cannot reasonably apply the BSER based on one of the three circumstances, it would be inappropriate to invoke RULOF to apply a less stringent standard of performance because the source can still reasonably achieve the presumptive degree of emission limitation. In this instance, providing a less stringent standard of performance would be inconsistent with the purpose of CAA section 111(d) and these emission guidelines.

States' consideration of the remaining useful life of a particular source for affected coal-fired EGUs, in particular, will also be informed by the structure of the EPA's proposed subcategories, each of which has its own BSER determination under these emission guidelines. Under CAA section 111(d)(1) and the EPA's proposed RULOF provisions, states may consider an affected EGU's remaining useful life in determining whether application of the BSER to achieve the presumptive level of stringency would result in unreasonable cost resulting from plant age.<sup>632</sup> In determining the BSER, the EPA considers costs and, in many instances, specifically considers annualized costs associated with payment of the total capital investment

of the technology associated with the BSER. However, plant age can have considerable variability within a source category and the annualized costs can change significantly based on an affected EGU's remaining useful life and associated length of the capital recovery period. Thus, the costs of applying the BSER to an affected EGU with a short remaining life may differ fundamentally from the costs that the EPA found were reasonable in making its BSER determination.

As explained in section X of this preamble, these proposed emission guidelines include BSER determinations and presumptive standards of performance for affected coal-fired EGUs in four subcategories: imminent-term, near-term, medium-term, and long-term. Owing to the basis of these subcategories, the EPA's proposed BSER determinations for each of these subcategories already consider costs amortized consistent with the operating horizons of sources within each subcategory. The EPA therefore does not anticipate that states would be likely to demonstrate the need to invoke RULOF based on a particular coal-fired EGU's remaining useful life, although doing so is not prohibited under these emission guidelines. The proposed requirements for states and affected EGUs invoking RULOF based on remaining useful life are addressed in the next subsection.

Conversely, the proposed subcategories for existing combustion turbines do not consider affected EGUs' operating horizons. The useful life of a combined cycle unit is approximately 25 to 30 years.<sup>633</sup> More than 151 GW of combined cycle units came on-line in the 2000 to 2010 timeframe,<sup>634</sup> meaning that many of these units could potentially be at or nearing the end of their remaining useful lives in the 2035 to 2040 timeframe. If an affected combustion turbine EGU has decided to cease operations and elects to make that cessation enforceable, the period over which controls would be amortized, depending on what that period of time is, may be short enough to invoke RULOF based on unreasonable cost of control.

The EPA is proposing to allow states to use the RULOF mechanism to provide a different compliance deadline for a source that can meet the presumptive standard of performance

<sup>630</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(e)).

<sup>631</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(g)).

<sup>632</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(e)(1)).

<sup>633</sup> <https://sargentlundy.com/wp-content/uploads/2017/05/Combined-Cycle-PowerPlant-LifeAssessment.pdf>.

<sup>634</sup> U.S. Environmental Protection Agency. National Electric Energy Data System (NEEDS) v6. October 2022. <https://www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs-v6>.



for the applicable subcategory but cannot do so by the final compliance date under these emission guidelines. In such cases, a State may be able to demonstrate that there are “other circumstances specific to the facility . . . that are fundamentally different from the information considered in the determination of the best system of emission reduction in the emission guidelines”<sup>635</sup> that make timely compliance impossible. However, given the relatively long lead times and compliance timeframes proposed in these emission guidelines, the EPA anticipates that these circumstances will be rare. Under the proposed revisions to subpart Ba, RULOF demonstrations, including those in support of extending a compliance deadline, would have to be based on information from reliable and adequately documented sources and be applicable to and appropriate for the affected facility.<sup>636</sup>

Additionally, as discussed in section XII.D.1.a of this preamble, the EPA is proposing a methodology for calculating an affected EGU’s baseline emissions as part of determining its presumptively approvable standard of performance. The EPA explained that while the proposed methodology should be flexible enough to accommodate most unit-specific circumstances, it may not be appropriate to use recent historical emissions data to represent baseline emission performance when an affected EGU anticipates that its future operating conditions will change significantly. Consistent with the proposed subpart Ba, the EPA is proposing that states wishing to rely on an affected EGU’s anticipated change in operating conditions as the basis for using a different methodology to set an emissions baseline would be required to use the RULOF mechanism described in this section of the preamble.

The EPA solicits comment on the application of the RULOF provisions of proposed subpart Ba, both in sum and as individual, segregable pieces, to these emission guidelines. In particular, the EPA requests comment on factual circumstances in which it may or may not be appropriate for states to invoke RULOF for affected EGUs, given the proposed BSER determinations and presumptive standards of performance, and the EPA’s proposed “fundamental difference” standard in the subpart Ba rulemaking. For the consideration of

cost, the EPA requests comment on whether it should provide further guidance or requirements for determining when the costs of a control technology for a particular source are “fundamentally different” from the Agency’s BSER determination and thus a basis for invoking RULOF. The EPA additionally seeks comment on any source category-specific considerations for invoking RULOF for affected EGUs, including any additional or different requirements that might be necessary to ensure that use of RULOF does not undermine the presumptive stringency of these emission guidelines.

#### b. Calculation of a Standard That Accounts for RULOF

Subpart Ba, both the presently applicable requirements and as the EPA has proposed to revise them, provides that, if a State has demonstrated that accounting for RULOF is appropriate for a particular affected EGU, the State may then apply a less stringent standard to that EGU. The EPA’s proposed revisions to subpart Ba would require that, in doing so, the State must determine a source-specific BSER by identifying all the systems of emission reduction available for the source and evaluating each system using the same factors and evaluation metrics that the EPA considered in determining the BSER for the applicable subcategory.<sup>637</sup> As part of determining source-specific BSER, the State would also have to determine the degree of emission limitation that can be achieved by applying this source-specific BSER to the particular source. The State would then calculate and apply the standard of performance that reflects this degree of emission limitation.<sup>638</sup>

Consistent with these proposed requirements in subpart Ba, the EPA is proposing that states invoking RULOF would be required to evaluate certain controls as appropriate for subcategories of affected EGUs. The EPA believes these proposed requirements are necessary to ensure that states reasonably consider the controls that may qualify as the best system of emission reduction. Additionally, the EPA is proposing to provide the order in which states must evaluate controls. A list of controls, ordered from more to less stringent, can provide useful

streamlining as states may reasonably choose to conduct a less in-depth evaluation of controls further down the list if they determine a more stringent control is the best system of emission reduction for a particular source. The EPA also believes that providing a list of controls for evaluation will provide states with clarity and certainty about what the Agency will find is a satisfactory source-specific BSER analysis pursuant to the RULOF mechanism. However, the EPA is also requesting comment on whether to provide lists of controls to be evaluated in a source-specific BSER analysis as a presumptively approvable approach, as opposed to requirements. Regardless of how the EPA finalizes the approach to controls for source-specific analyses, states would retain discretion to evaluate additional types of controls as part of a source-specific BSER determination for sources pursuant to RULOF.

The EPA is proposing to require states invoking RULOF for affected coal-fired EGUs in the long-term subcategory to evaluate natural gas co-firing as a potential source-specific BSER. Additionally, if an EGU in the long-term subcategory can implement CCS but cannot achieve the degree of emission limitation prescribed by the presumptive standard of performance, the EPA is proposing that the State evaluate CCS with a source-specific degree of emission limitation as a potential BSER. The EPA is also proposing that states invoking RULOF for affected long-term and medium-term coal-fired EGUs must evaluate different levels of natural gas co-firing. For example, for a source in the medium-term subcategory that cannot reasonably co-fire 40 percent natural gas, the State must then evaluate lower levels of natural gas co-firing unless it has demonstrated that natural gas co-firing at any level is physically impossible or technically infeasible at the source. Similarly, if a State invoking RULOF for an affected EGU in the long-term subcategory demonstrates that the EGU cannot co-fire with natural gas at 40 percent, the EPA is proposing that the State must then evaluate lower levels of co-firing as potential BSERs for the source, unless the State can demonstrate that it is physically impossible or technically infeasible for the source to co-fire natural gas. States may also consider additional potential source-specific BSERs for affected EGUs in either subcategory.

For states invoking RULOF for affected existing combustion turbine EGUs, the EPA is similarly proposing a requirement to evaluate certain control

<sup>635</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(e)(3)).

<sup>636</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(f)).

<sup>637</sup> To the extent that a state seeks to apply RULOF to a class of affected EGUs that the state can demonstrate are similarly situated in all meaningful ways, the EPA proposes to permit the state to conduct an aggregate analysis of the BSER factors for the entire class of EGUs for which RULOF has been invoked.

<sup>638</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(f)).

strategies as part of a source-specific BSER analysis. As a preliminary step, for sources in either the CCS combustion turbine subcategory or the hydrogen co-fired combustion turbine subcategory, the EPA is proposing that a State would first have to demonstrate why the affected EGU cannot reasonably participate in the other subcategory and meet that other subcategory's presumptive standard of performance. If a unit can reasonably comply with the presumptive standard of performance for the alternate source category, it must do so.

For combustion turbines in the CCS subcategory that cannot reasonably comply with the presumptive standards of performance for either that subcategory or the hydrogen co-fired subcategory, the EPA is proposing that, unless a State has demonstrated that it is physically impossible or technically infeasible for a unit to implement CCS, the State must evaluate CCS with lower rates of carbon capture as a potential BSER. If CCS with lower rates of capture is not the BSER, the State would then be required to consider comprehensive turbine upgrades, and finally smaller scale efficiency improvements. For hydrogen co-fired combustion turbines that cannot reasonably comply with the presumptive standards of performance for either subcategory, a State would first analyze lower percentages of hydrogen co-firing, followed by comprehensive turbine upgrades, and lastly smaller scale efficiency improvements. States would also be free to analyze additional potential source-specific BSERs for affected combustion turbine EGUs in either subcategory.

The EPA requests comment on the proposed requirement to consider certain control technologies as part of source-specific BSER determinations, and specifically on whether the Agency should require this approach as proposed or, in the alternative, provide it as a presumptively approvable approach to conducting a source-specific BSER analysis.

The EPA notes again that, under both the proposed subpart Ba and CAA section 111(d),<sup>639</sup> an affected EGU that cannot reasonably apply the EPA's BSER but can achieve the degree of emission limitation for the applicable subcategory through other reasonable systems of emission reduction cannot be

given a less stringent standard of performance. In this case, the affected EGU's standard of performance would still reflect the degree of emission limitation achievable through application of the EPA's BSER.

The EPA has proposed in its revisions to subpart Ba that specific requirements would apply when invoking RULOF based on an affected source's remaining useful life.<sup>640</sup> Among other requirements, the EPA in an emission guideline would have to either identify the outermost date to cease operations for the relevant source category that qualifies for consideration of remaining useful life or provide a methodology and considerations for states to use in establishing such an outermost date. Proposed subpart Ba also provides that an affected source with a date to cease operations that is both imminent and prior to the outermost date could be eligible for a standard of performance that reflects that source's BAU. The EPA is proposing to supersede the application of subpart Ba for coal-fired steam generating units with respect to the proposed requirements to establish outermost and imminent dates to cease operations for invoking RULOF based on an affected EGU's remaining useful life. As explained earlier in this section of the preamble, the EPA has designed the subcategories for coal-fired affected EGUs under these emission guidelines to accommodate sources' self-identified operating horizons. This approach to subcategorization obviates the need to establish an outermost date to cease operations to guide states' and affected EGUs' consideration of remaining useful life. Additionally, the EPA is proposing to establish an imminent-term subcategory with a proposed BSER determination of routine operation and maintenance, which serves the same purpose as establishing an imminent date to cease operations under the RULOF provision. Although it is not anticipated that states will have a reason to invoke RULOF due to a coal-fired EGU's imminent date to cease operations based on the structure of the subcategories under these emission guidelines, states are not precluded from doing so based on unit-specific circumstances.

Because of the small number of sources in the oil- and natural gas-fired steam generating unit subcategories and the diversity of circumstances in which they operate, the EPA is not proposing to establish outermost or imminent

dates to cease operations for the purpose of considering remaining useful life for these sources. Regardless, because the proposed BSER determinations for these EGUs is routine methods of operation and maintenance (other than for low-load oil- and natural gas-fired steam generating units), the EPA does not anticipate that states will find it necessary to invoke RULOF for these sources.

The EPA is also proposing to supersede the requirement in subpart Ba to establish imminent and outermost dates for the consideration of remaining useful life for affected combustion turbine EGUs. While, as discussed above in this section of the preamble, it is likely that some portion of the existing combustion turbine fleet will be reaching the end of its remaining useful life in the 2035 to 2040 timeframe, the structure of the proposed subcategories, the length of time between State plan submission and the compliance dates for the subcategories, and the staggered compliance dates for the two subcategories make it difficult to set a widely-applicable date or dates that represent an imminent cessation of operations. States would not be precluded from demonstrating that an affected combustion turbine EGU's remaining useful life is so short that it qualifies for a business-as-usual standard of performance (*i.e.*, that its remaining useful life is so short that the cost of any control would be unreasonably high). Similarly, based on the proposed BSERs for the subcategories and the staggered nature of the proposed compliance dates for combustion turbine EGUs, the EPA does not believe it is helpful to set an outermost date for the considering of remaining useful life for these units. The EPA requests comment on its proposal to supersede the requirements in subpart Ba to set imminent and outermost dates for the consideration of remaining useful life for affected combustion turbine EGUs. If commenters believe such dates would be useful to guide states' consideration of remaining useful life for affected existing combustion turbines, the EPA further requests input on what those dates could be, and why.

The proposed subpart Ba would require that any plan that applies a less stringent standard to a particular affected EGU based on remaining useful life must include the date by which the EGU commits to permanently cease operations as an enforceable

<sup>639</sup> As discussed earlier in this preamble, permitting a state to apply a less stringent standard to an affected EGU that can achieve the degree of emission limitation the EPA determined is required would be inconsistent with CAA section 111(d). See also 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(g)).

<sup>640</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(h), (i)).

requirement.<sup>641</sup> The plan would also have to include measures that provide for the implementation and enforcement of such a commitment. The EPA is not proposing to supersede this proposed requirement for the purpose of this emission guideline; states that include a RULOF standard based on an affected EGU's remaining useful life must make the source's voluntary commitment to permanently cease operations by a date certain enforceable in the State plan.

Similarly, subpart Ba would require that if a State seeks to rely on a source's operating conditions, such as its restricted capacity, as the basis for invoking RULOF and setting a less stringent standard, the State plan must include that operating condition as an enforceable requirement.<sup>642</sup> This requirement would apply to operating conditions that are within an affected EGU's control and is necessary to ensure that a source's standard of performance matches what that source can reasonably achieve and does not undermine the stringency of these emission guidelines.

The proposed presumptively approvable standards of performance for affected EGUs in these emission guidelines are expressed in the form of rate-based emission limitations, specifically, as lb CO<sub>2</sub>/MWh. Therefore, to ensure transparency and to enable the EPA, states, and stakeholders to ensure that RULOF standards do not undermine the presumptive stringency of these emission guidelines, the EPA is proposing to require that standards of performance determined through this RULOF mechanism be in the same form of rate-based emission limitations.<sup>643</sup>

The EPA seeks comment on implementation of the proposed subpart Ba requirements pertaining to determining a source-specific BSER and calculating a less stringent standard for sources invoking RULOF under these emission guidelines. It also seeks comment on the proposed requirements that are specific to these emission guidelines, including but not limited to the proposed requirement that states evaluate certain control options for affected coal-fired steam generating units in the long-term and medium-term subcategories and for affected

combustion turbine EGUs as part of their source-specific BSER determination, the proposal to not provide outermost or imminent dates to cease operations for the consideration of remaining useful life, and the proposal to require RULOF standards of performance to be in the form of lb CO<sub>2</sub>/MWh emission limitations.

#### c. Consideration of Impacted Communities

While the consideration of RULOF may warrant application of a less stringent standard of performance to a particular affected EGU, such standards have the potential to result in disparate health and environmental impacts to communities most affected by and vulnerable to impacts from those EGUs. Those communities could be put in the position of bearing the brunt of the greater health and environmental impacts resulting from an affected EGU implementing a less stringent standard of performance than would otherwise have been required pursuant to the emission guidelines. A lack of consideration of such potential outcomes would be antithetical to the public health and welfare goals of CAA section 111(d).

Therefore, the proposed subpart Ba revisions would require that states applying less stringent standards of performance consider the potential pollution impacts and benefits of control to communities most affected by and vulnerable to emissions from the affected EGU in determining source-specific BSERs and the degree of emission limitation achievable through application of such BSERs.<sup>644</sup> The State will have identified these communities as pertinent stakeholders in the process of meaningful engagement, which is discussed in section XII.F.1.b of this preamble.

If the EPA finalizes the requirement under subpart Ba to consider the potential pollution impacts and benefits of control to the communities most affected by and vulnerable to emissions from a RULOF source communities as proposed, State plan submissions under these emission guidelines would have to demonstrate that the State considered such impacts and benefits in applying a less stringent standard of performance to such a source. The EPA expects that states' meaningful engagement with pertinent stakeholders on the State plan development generally will include engagement on any potential use of RULOF to apply less stringent standards

of performance. The proposed requirement that states consider the potential pollution impacts and benefits of control in the context of a source-specific BSER analysis for a particular source is intended to provide for states' consideration of health and environmental effects on the communities that are most affected by and vulnerable to emissions from that particular source. As an example, the State plan submission could include a comparative analysis assessing potential BSER options for an affected EGU and the corresponding potential benefits to the identified communities under each option. If the comparative analysis shows that emissions from an affected EGU could be controlled at a higher cost but that such control benefits the communities that would otherwise be adversely impacted by a less stringent standard of performance, the State could balance these considerations and determine that a higher cost is warranted for the source-specific BSER.

The plan submission under these emission guidelines must clearly identify the communities most affected by and vulnerable to emissions from the designated facility. The EPA is proposing that, in evaluating potential source-specific BSERs, a State must document any health or environmental impacts and benefits of control options and describe how it considered those impacts on the identified communities. Pursuant to the proposed meaningful engagement requirements discussed in section XII.F.1.b of this preamble, states' plan submissions would also be required to include a summary of the meaningful engagement the State conducted and a summary of stakeholder input received, including any engagement and input on RULOF sources and the calculation of less-stringent standards of performance.

The EPA solicits comments on additional ways in which states might consider potential pollution impacts and benefits of control to communities most affected by and vulnerable to emissions from affected EGUs when determining a less-stringent standard pursuant to RULOF. In particular, the Agency is requesting comment on metrics or information concerning health and environmental impacts from affected EGUs that states can consider in source-specific RULOF determinations. As discussed in section XII.F.1.b, the EPA is also requesting comment on tools and methodologies for identifying communities that are most affected by and vulnerable to emissions from affected EGUs under these emission guidelines.

<sup>641</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(h), (i)(3)).

<sup>642</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(h)).

<sup>643</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(f)(3)).

<sup>644</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(k)).

d. The EPA's Standard of Review of State Plans Invoking RULOF

Under CAA section 111(d)(2), the EPA has the obligation to determine whether a State plan submission is "satisfactory." This obligation extends to all aspects of a State plan, including the application of less stringent standards of performance that account for RULOF. Pursuant to CAA section 111(d) and the proposed subpart Ba provisions,<sup>645</sup> states carry the burden of making the demonstrations required under the RULOF mechanism and have the obligation to justify any accounting for RULOF in support of standards of performance that are less stringent than the proposed presumptively approvable standards in these emission guidelines. While the EPA has the discretion to supplement a State's demonstration, the EPA may also find that inadequacies in a State plan's demonstration are a basis for concluding that the plan is not "satisfactory" and may therefore disapprove the plan.

As a general matter, a less stringent standard of performance pursuant to RULOF must meet all other applicable requirements of subpart Ba and these emission guidelines.<sup>646</sup>

In determining whether a State has met its burden in providing a less stringent standard of performance based on RULOF, the EPA will consider, among other things, the applicability and appropriateness of the information on which the State relied. Both a demonstration that a particular affected EGU meets the threshold requirements to invoke RULOF and the determination of a source-specific standard of performance entail the use of technical, cost, engineering, and other information. The proposed subpart Ba revisions would require states to use information that is applicable to and appropriate for the particular source at issue.<sup>647</sup> This means that, when available, the State must use source- and site-specific information. This is consistent with the premise that invoking RULOF is appropriate for a particular source when there are fundamental differences between the EPA's BSER and that source's specific circumstances.

<sup>645</sup> CAA section 111(d)(2), 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(j)).

<sup>646</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(l)).

<sup>647</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(j)(1)).

In some instances, site-specific information may not be available. In such cases, it may be reasonable for a State to use information from, *e.g.*, cost, engineering, and other analyses the EPA has provided to support this rulemaking. The EPA is proposing that states using non-site-specific information must explain why that information is reasonable to rely on to determine a less stringent standard of performance based on RULOF. Regardless of the information used, it must come from reliable and adequately documented sources, which the proposed subpart Ba revisions explain presumptively include sources published by the EPA, permits, environmental consultants, control technology vendors, and inspection reports.<sup>648</sup>

The EPA solicits comment on the types of source-specific and other information that states should be required to provide to support the inclusion of standards of performance based on RULOF in State plans, as well as on any additional sources of information that may be appropriate for states to use in this context.

e. Authority To Apply More Stringent Standards as Part of State Plans

As explained in the subpart Ba notice of proposed rulemaking, the EPA reevaluated its interpretation of CAA sections 111(d) and 116 and, consistent with its revised interpretation, has proposed revisions to subpart Ba to clarify that states may consider RULOF to include more stringent standards of performance in their State plans.<sup>649</sup> The allowance in CAA section 111(d)(1) that states may consider "other factors" does not limit states to considering only factors that may result in a less stringent standard of performance; other factors that states may wish to account for in applying a more stringent standard than provided in these emission guidelines include, but are not limited to, effects on local communities, the availability of control technologies that allow a particular source to achieve greater emission reductions, and local or State policies and requirements.

Pursuant to proposed subpart Ba, states seeking to apply a more stringent standard of performance based on other factors would have to adequately demonstrate that the standard is in fact

<sup>648</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(j)(2)).

<sup>649</sup> 87 FR 79176, 79204 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(m), (n)).

more stringent than the presumptively approvable standard of performance for the applicable subcategory. However, a State would not be required to conduct a source-specific BSER evaluation for the purpose of applying a more stringent standard of performance, so long as the standard will achieve equivalent or better emission reductions. In this case, the EPA believes it is appropriate to defer to the State's discretion to impose a more stringent standard on an individual source because such a standard does not have the potential to undermine the presumptive stringency of these emission guidelines.

More stringent standards of performance must meet all applicable statutory and regulatory requirements, including that they are adequately demonstrated.<sup>650</sup> As for all standards of performance, the State plan must include requirements that provide for the implementation and enforcement of a more stringent standard. The EPA has the ability and authority to review more stringent standards of performance and to approve them provided that the minimum requirements of subpart Ba and these emission guidelines are met, rendering them federally enforceable.

The EPA requests comment on the implementation of the proposed subpart Ba provisions pertaining to more stringent standards of performance in the context of these particular emission guidelines.

3. Increments of Progress and Milestones for Affected EGUs That Have Elected To Commit To Cease Operations

The EPA's long-standing CAA section 111 implementing regulations at 40 CFR part 60, subpart Ba<sup>651</sup> provide that State plans must include legally enforceable increments of progress to achieve compliance for each designated facility when the compliance schedule extends more than a specified length of time from the State plan submission date.<sup>652</sup> The EPA's December 2022 proposed revisions to subpart Ba would require increments of progress when the compliance date is more than 16 months after the State plan submission deadline.<sup>653</sup> Under these proposed emission guidelines, the State plan submission date would be 24 months (see section XII.F.2 of this preamble) from promulgation of the emission

<sup>650</sup> 87 FR 79176, 79204 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(m)).

<sup>651</sup> See also 40 CFR 60.21(h).

<sup>652</sup> 40 CFR 60.24a(d).

<sup>653</sup> 87 FR 79176, 79204 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.24a(d)).

guidelines, which the EPA is currently anticipating will be June 2026. The proposed compliance dates for affected EGUs within the proposed subcategories all fall on or after January 1, 2030, which is more than 16 months after the State plan submission deadline. The EPA is therefore proposing to require that State plans include increments of progress as discussed in this section. For the purpose of these emission guidelines, the EPA refers to pre-compliance date, federally enforceable requirements associated with the planning, construction, and operation of natural gas or hydrogen co-firing infrastructure and CCS as increments of progress. The EPA is also proposing separate, federally enforceable “milestones” associated with activities surrounding enforceable dates to permanently cease operations for steam generating EGUs in the imminent-term, near-term, and medium-term subcategories. These additional State plan requirements are intended to ensure that affected coal-fired steam generating units can complete the steps necessary to qualify for a subcategory with a less stringent BSER and to provide the public assurance that those steps will be concluded in a timely manner.

#### a. Increments of Progress

The EPA is proposing to adopt emission guideline-specific implementation of the five generic increments specified in the CAA section 111(d) implementing regulations at 40 CFR 60.21a(h). These five increments of progress are: (1) Submittal of a final control plan for the designated facility to the appropriate air pollution control agency; (2) Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification; (3) Initiation of on-site construction or installation of emission control equipment or process change; (4) Completion of on-sites construction or installation of emission control equipment or process change; and (5) Final compliance. To this end, the EPA is proposing that State plans must include specified enforceable increments of progress as required elements for coal-fired EGUs that use natural gas co-firing to meet the standard of performance for the medium-term existing coal-fired steam generating subcategory and for natural gas-fired combustion turbine EGUs that use hydrogen co-firing to meet the standard of performance for hydrogen co-fired combustion turbine subcategory. The EPA is additionally

proposing that State plans must include enforceable increments of progress for units that use CCS to meet the standard of performance for the long-term existing coal-fired steam generating subcategory or for the CCS combustion turbine subcategory.

Some increments have been adjusted to more closely align with planning, engineering, and construction steps anticipated for designated facilities that will be complying with standards of performance with natural gas or hydrogen co-firing or CCS, but they retain the basic structure and substance of the increments in the general implementing regulations. In addition, consistent with 40 CFR 60.24a(d), the EPA is proposing similar additional increments of progress for the long-term and medium-term coal-fired subcategories as well as both combustion turbine subcategories to ensure timely progress on the planning, permitting, and construction activities related to pipelines that may be required to enable full compliance with the applicable standard of performance. The EPA is also proposing an additional increment of progress related to the identification of an appropriate sequestration site for the long-term coal-fired subcategory and the CCS combustion turbine subcategory. Finally, the proposed emission guidelines include an additional increment of progress that that applies solely to the hydrogen co-fired combustion turbine subcategory related to securing sufficient hydrogen contract capacity to meet the standard of performance.

The EPA notes that affected EGUs do not necessarily have to implement the EPA’s BSER technology to comply with their applicable standards of performance. For example, affected EGUs in the medium- and long-term coal-fired steam generating unit subcategories may meet their standards of performance using approaches other than natural gas co-firing and CCS, respectively. Where the owners or operators of affected EGUs select compliance approaches that deviate from the BSER technology associated with a subcategory requiring increments of progress, the EPA proposes that the State plan would be required to specify increments of progress for the relevant affected EGUs that are consistent with the increments in 40 CFR 60.21a(h), as well as dates for achieving each increment.

The EPA is proposing that final compliance with the applicable standard of performance, also defined as the final increment of progress at 40 CFR 60.21a(h)(5), must occur no later

than January 1, 2030 for steam generating units in the medium-term and long-term subcategories, no later than January 1, 2035 for combustion turbine EGUs in the CCS subcategory, and no later than January 1, 2032 for combustion turbine EGUs in the hydrogen co-fired subcategory.<sup>654</sup> For the remaining increments, the EPA is not proposing date-specific deadlines for achieving increments of progress. Instead, the EPA proposes that states must assign calendar day deadlines for each of the remaining increments for each affected EGU in their State plan submissions. The first increment of progress listed at 40 CFR 60.21a(h)(1), submittal of a final control plan to the air pollution control agency, must be assigned the earliest calendar date deadline among the increments. The EPA believes that allowing states to schedule sources’ increments of progress would provide them with flexibility to tailor compliance timelines to individual facilities, allow simultaneous work toward separate increments, and still ensure full performance by the compliance date. The EPA solicits comment on this approach as well as whether the EPA should instead finalize date-specific deadlines or more general timeframes for achieving increments of progress rather than leaving the timing for most increments to State discretion. The EPA also seeks comment on the specific deadlines or timeframes that the EPA could assign to each increment under a more prescriptive approach.

The EPA is not proposing increments of progress for either the imminent- or near-term subcategories for coal-fired steam generating units, or for oil- or natural gas-fired steam generating units. The proposed BSERs for these affected EGUs are routine operation and maintenance, which does not require the installation of significant new emission controls or operational changes. Because there is no need for the types of increments of progress specified in 40 CFR 60.21a(h) to ensure that affected EGUs in the imminent and near-term coal-fired and oil- and natural gas-fired subcategories can achieve full compliance by the compliance date, the EPA is proposing that the requirement

<sup>654</sup> The EPA is proposing that the second phase of the standard of performance for existing hydrogen co-fired combustion turbines, which corresponds to co-firing 96 percent by volume low-GHG hydrogen, would start on January 1, 2038. However, the EPA is not proposing an increment of progress associated with this second phase because the Agency anticipates the relevant planning, design, and construction steps will have occurred ahead of the January 1, 2032 compliance date.

for increments of progress in 40 CFR 60.24a(d) does not apply to these units.

For coal-fired steam generating units falling within the medium-term subcategory and combustion turbine EGUs within the hydrogen co-fired subcategory (*i.e.*, units with proposed BSERs of co-firing clean fuels), the EPA proposes the following increments of progress as enforceable elements required to be included in a State plan: (1) Submission of a final control plan for the affected EGU to the appropriate air pollution control agency. The final control plan must be consistent with the subcategory declaration in the State plan and must include supporting analysis for the affected EGU's control strategy, including the design basis for modifications at the facility, the anticipated timeline to achieve full compliance, and the benchmarks the facility anticipates along the way. (2) Awarding of contracts for boiler or turbine modifications, or issuance of orders for the purchase of component parts to accomplish such modifications. Affected EGUs can demonstrate compliance with this increment by submitting sufficient evidence that the appropriate contracts have been awarded. (3) Initiation of onsite construction or installation of any boiler or turbine modifications necessary to enable natural gas co-firing at a level of 40 percent on an annual average basis or hydrogen co-firing at 30 percent on an annual average basis, as appropriate for the applicable subcategory. (4) Completion of onsite construction of any boiler or turbine modifications necessary to enable natural gas co-firing at a level of 40 percent on an annual average basis or hydrogen co-firing at 30 percent on an annual average basis, as appropriate for the applicable subcategory. (5) Final compliance with the standard of performance by January 1, 2030 for coal-fired steam generating units and by January 1, 2032 for combustion turbine EGUs.

In addition to the five increments of progress derived from the CAA section 111(d) implementing regulations, the EPA is proposing an additional increment of progress for affected EGUs with proposed BSERs based on co-firing clean fuels (natural gas co-firing for medium-term coal-fired steam generating EGUs and hydrogen co-firing for hydrogen co-fired combustion turbine EGUs) to ensure timely completion of any pipeline infrastructure needed to transport natural gas or hydrogen to designated facilities within each subcategory. Affected EGUs would be required to demonstrate that all permitting actions related to pipeline construction have

commenced by a date specified in the State plan. Evidence in support of the demonstration must include pipeline planning and design documentation that informed the permitting application process, a complete list of pipeline-related permitting applications, including the nature of the permit sought and the authority to which each permit application was submitted, an attestation that the list of pipeline-related permit applications is complete with respect to the authorizations required to operate the facility at full compliance with the standard of performance, and a timeline to complete all pipeline permitting activities.

Affected EGUs within the hydrogen co-fired combustion turbine subcategory must meet an additional increment of progress to demonstrate they have secured access to hydrogen supplies sufficient to meet their anticipated 2032 fuel needs. This increment can be met by a capacity contract for hydrogen at volumes in 2032 consistent with the information provided in the final control plan and the pipeline specification included in the pipeline construction increment of progress.

For coal-fired EGUs falling within the long-term subcategory and for combustion turbine EGUs falling within the CCS subcategory (*i.e.*, units with proposed BSERs of CCS), the EPA proposes the following increments of progress as required, enforceable elements to be included in a State plan submission: (1) Submission of a final control plan for the affected EGU to the appropriate air pollution control agency. The final control plan must be consistent with the subcategory declaration in the State plan and must include supporting analysis for the affected EGU's control strategy, including a feasibility and/or FEED study. (2) Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification. Affected EGUs can demonstrate compliance with this increment by submitting sufficient evidence that the appropriate contracts have been awarded. (3) Initiation of onsite construction or installation of emission control equipment or process change required to achieve 90 percent CO<sub>2</sub> capture on an annual basis. (4) Completion of onsite construction or installation of emission control equipment or process change required to achieve 90 percent CO<sub>2</sub> capture on an annual basis. (5) Final compliance with the standard of performance by January 1, 2030 for coal-fired steam generating

units and by January 1, 2035 for combustion turbine EGUs.

In addition to the five increments of progress derived from the CAA section 111(d) implementing regulations, the EPA is proposing two additional increments for affected EGUs that adopt CCS to meet the standard of performance for the long-term coal-fired steam generating unit and CCS combustion turbine subcategories. The first mirrors the proposed approach for the co-firing subcategories to ensure timely completion of pipeline infrastructure and the second is designed to ensure timely selection of an appropriate sequestration site. As the first additional increment, the EPA proposes that affected EGUs using CCS to comply with their standards of performance would be required to demonstrate that all permitting actions related to pipeline construction have commenced by a date specified in the State plan. Evidence in support of the demonstration must include pipeline planning and design documentation that informed the permitting process, a complete list of pipeline-related permitting applications, including the nature of the permit sought and the authority to which each permit application was submitted, an attestation that the list of pipeline-related permits is complete with respect to the authorizations required to operate the facility at full compliance with the standard of performance, and a timeline to complete all pipeline permitting activities.

The second proposed additional increment of progress for affected EGUs using CCS to comply with their standards of performance is formulated to ensure timely completion of site selection for geologic sequestration of captured CO<sub>2</sub> from the facility. Affected EGUs within this subcategory must submit a report identifying the geographic location where CO<sub>2</sub> will be injected underground, how the CO<sub>2</sub> will be transported from the capture location to the storage location, and the regulatory requirements associated with the sequestration activities, as well as an anticipated timeline for completing related permitting activities.

The EPA requests comment on the substance of each of the six proposed increments of progress for coal-fired steam generating units falling within the medium-term subcategory, the seven increments of progress for units within the hydrogen co-fired combustion turbine subcategory, and the seven increments of progress proposed for both subcategories that anticipate CCS adoption. The EPA seeks comment on whether the increments contain an

appropriate level of specificity to establish clear, verifiable criteria to ensure that states and affected EGUs are taking the steps necessary to reach full compliance. If commenters believe they do not, the EPA requests comment on the appropriate level of specificity for each increment. Additionally, as discussed in section XII.F.1.b.ii of this preamble, the EPA is proposing a requirement that each State plan provide for the establishment of Carbon Pollution Standards for EGUs websites by the owners or operators of affected EGUs. The EPA is further proposing that State plans must require affected EGUs with increments of progress to post those increments, the schedule required in the State plan for achieving them, and any documentation necessary to demonstrate that they have been achieved to this website in a timely manner.

#### b. Milestones for Affected EGUs That Have Elected To Commit To Cease Operations

The EPA is proposing that State plans must include legally enforceable milestones for affected EGUs within the imminent-term, near-term, and medium-term coal-fired steam generating unit subcategories. As described in section X of this preamble, the applicability criteria for each of the subcategories of coal-fired steam generating units include an affected EGU's intended operating horizon; where owners or operators of affected EGUs have elected to commit to permanently cease operations by a date certain before January 1, 2040, and, where a State further elects to include such commitments as an enforceable element in a State plan, such EGUs will fall into one of these three subcategories. Accordingly, affected EGUs in the imminent-term, near-term, and medium-term subcategories have BSERs that are specifically tailored to and dependent on their shorter operating horizons. The EPA is aware that there are many processes an affected EGU must complete in order to permanently cease operation. Therefore, to ensure that affected EGUs can complete the steps necessary to qualify for a subcategory with a less stringent standard of performance and to provide the public assurance that those steps will be concluded in a timely manner, the EPA is proposing additional State plan requirements, referred to as "milestones," for EGUs in the imminent-term, near-term, and medium-term subcategories.

The proposed milestone reporting requirements count backward from an affected EGU's date to permanently

cease operations to ensure timely progress toward that date. Five years before any date used to determine the applicable subcategory under these emission guidelines or 60 days after State plan submission, whichever is later, designated facilities must submit an Initial Milestone Report to the applicable State administering authority that includes the following: (1) A summary of the process steps required for the affected EGU to permanently cease operation by the date included in the State plan, including the approximate timing and duration of each step. (2) A list of key milestones, metrics that will be used to assess whether each milestone has been met, and calendar day deadlines for each milestone. These milestones must include at least the following: notice to the official reliability authority of the retirement date; submittal of an official suspension filing (or equivalent filing) made to the affected EGU's reliability authority; and submittal of an official retirement filing with the unit's reliability authority. (3) An analysis of how the process steps, milestones, and associated timelines included in the Milestone Report compare to the timelines of similar units within the State that have permanently ceased operations within the 10 years prior to the date of promulgation of these emission guidelines. (4) Supporting regulatory documents, including correspondence and official filings with the relevant regional transmission organization, balancing authority, public utility commission, or other applicable authority, as well as any filings with the SEC or notices to investors in which the plans for the EGU are mentioned and any integrated resource plan.

For each of the remaining years prior to the date to permanently cease operations that is used to determine the applicable subcategory, affected EGUs must submit an annual Milestone Status Report that addresses the following: (1) Progress toward meeting all milestones and related metrics identified in the Milestone Report; and (2) supporting regulatory documents, including correspondence and official filings with the relevant regional transmission organization, balancing authority, public utility commission, or other applicable authority to demonstrate compliance with or progress toward all milestones.

The EPA is also proposing that affected EGUs with reporting milestones associated with commitments to permanently cease operations would be required to submit a Final Milestone Status Report no later than 6 months

following its federally enforceable date. This report would document any actions that the unit has taken subsequent to ceasing operation to ensure that such cessation is permanent, including any regulatory filings with applicable authorities or decommissioning plans. The EPA requests input on whether 6 months after the federally enforceable date is an appropriate period of time to capture any actions affected EGUs taken following cessation of operations.

The EPA is proposing that affected EGUs with reporting milestones for commitments to permanently cease operations would be required to post their Initial Milestone Report, annual Milestone Status Reports, and Final Milestone Status Report, including the schedule for achieving milestones and any documentation necessary to demonstrate that milestones have been achieved, on the Carbon Pollution Standards for EGUs website, as described in section XII.F.1.b, within 30 business days of being filed.

The EPA recognizes that applicable regulatory authorities, retirement processes, and retirement approval criteria will vary across states and affected EGUs. The proposed milestone requirements are intended to establish a general framework flexible enough to account for significant differences across jurisdictions while assuring timely planning toward the dates by which affected EGUs permanently cease operations. The EPA requests comment on this proposed approach, specifically whether any jurisdictions present unique State circumstances that should be considered when defining milestones and the required reporting elements.

#### 4. Testing and Monitoring Requirements

The EPA is proposing to require states to include in their plans a requirement that affected EGUs monitor and report hourly CO<sub>2</sub> mass emissions emitted to the atmosphere, total heat input, and total gross electricity output, including electricity generation and, where applicable, useful thermal output converted to gross MWh, in accordance with the 40 CFR part 75 monitoring and reporting requirements. Under this proposal, affected EGUs would be required to use a 40 CFR part 75 certified monitoring methodology and report the hourly data on a quarterly basis, with each quarterly report due to the Administrator 30 days after the last day in the calendar quarter. The monitoring requirements of 40 CFR part 75 require most fossil fuel-fired boilers to use a CO<sub>2</sub> CEMS, including a CO<sub>2</sub> concentration monitor and stack gas flow monitor, although some oil- and



natural gas-fired boilers may have options to use alternative measurement methodologies (e.g., fuel flow meters). A CO<sub>2</sub> CEMS is the most technically reliable method of emission measurement for EGUs that burn solid fuels, as it provides a measurement method that is performance based rather than equipment specific and is verified based on NIST traceable standards. A CEMS provides a continuous measurement stream that can account for variability in the fuels and the combustion process. Reference methods have been developed to ensure that all CEMS meet the same performance criteria, which helps to ensure consistent, accurate data. Natural gas-fired combustion turbines have options under appendices D and G of 40 CFR part 75 to use fuel flowmeters in lieu of a CO<sub>2</sub> CEMS. The flue flowmeter data, paired with fuel quality data, is used to determine CO<sub>2</sub> mass emissions and heat input.

The majority of EGUs will generally have no changes to their monitoring and reporting requirements and will continue to monitor and submit emissions reports under 40 CFR part 75 as they have under existing programs, such as the Acid Rain Program (ARP) and the Regional Greenhouse Gas Initiative (RGGI)—a cooperative of several states formed to reduce CO<sub>2</sub> emissions from EGUs. The majority of coal- and oil-fired EGUs not subject to the ARP or RGGI are subject to the MATS program and, therefore, will have installed stack gas flow monitors and/or CO<sub>2</sub> concentration monitors necessary to comply with the MATS. Similarly, the majority of natural gas-fired combustion turbines that may be affected by this rule already use fuel flowmeters to monitor and report CO<sub>2</sub> mass emissions and heat input under appendices D and G of 40 CFR part 75. Relying on the same monitors that are certified and quality-assured in accordance with 40 CFR part 75 ensures cost efficient, consistent, and accurate data that may be used for different purposes for multiple regulatory programs.

The EPA requests comment on monitoring and reporting requirements for captured CO<sub>2</sub> mass emissions and net electricity output, and on allowable testing methods for stack gas flow rate.

The CCS process is also subject to monitoring and reporting requirements under the EPA's GHGRP (40 CFR part 98). The GHGRP requires reporting of facility-level GHG data and other relevant information from large sources and suppliers in the U.S. The "suppliers of carbon dioxide" source category of the GHGRP (GHGRP subpart PP)

requires those affected facilities with production process units that capture a CO<sub>2</sub> stream for purposes of supplying CO<sub>2</sub> for commercial applications or that capture and maintain custody of a CO<sub>2</sub> stream in order to sequester or otherwise inject it underground to report the mass of CO<sub>2</sub> captured and supplied. Facilities that inject a CO<sub>2</sub> stream underground for long-term containment in subsurface geologic formations report quantities of CO<sub>2</sub> sequestered under the "geologic sequestration of carbon dioxide" source category of the GHGRP (GHGRP subpart RR). In 2022, to complement GHGRP subpart RR, the EPA proposed the "geologic sequestration of carbon dioxide with enhanced oil recovery (EOR) using ISO 27916" source category of the GHGRP (GHGRP subpart VV) to provide an alternative method of reporting geologic sequestration in association with EOR.<sup>655 656 657</sup>

The EPA is proposing that any affected unit that employs CCS technology that captures enough CO<sub>2</sub> to meet the proposed standard and injects the captured CO<sub>2</sub> underground must report under GHGRP subpart RR or proposed GHGRP subpart VV. If the emitting EGU sends the captured CO<sub>2</sub> offsite, it must assure that the CO<sub>2</sub> is managed at a facility subject to the GHGRP requirements, and the facility injecting the CO<sub>2</sub> underground must report under GHGRP subpart RR or proposed GHGRP subpart VV. This proposal does not change any of the requirements to obtain or comply with a UIC permit for facilities that are subject to the EPA's UIC program under the Safe Drinking Water Act.

The EPA also notes that compliance with the standard is determined exclusively by the tons of CO<sub>2</sub> captured by the emitting EGU. The tons of CO<sub>2</sub> sequestered by the geologic sequestration site are not part of that calculation, though the EPA anticipates that the quantity of CO<sub>2</sub> sequestered

<sup>655</sup> 87 FR 36920 (June 21, 2022).

<sup>656</sup> International Standards Organization (ISO) standard designated as CSA Group (CSA/American National Standards Institute (ANSI) ISO 27916:2019, *Carbon Dioxide Capture, Transportation and Geological Storage—Carbon Dioxide Storage Using Enhanced Oil Recovery (CO<sub>2</sub>—EOR)* (referred to as "CSA/ANSI ISO 27916:2019").

<sup>657</sup> As described in 87 FR 36920 (June 21, 2022), both subpart RR and proposed subpart VV (CSA/ANSI ISO 27916:2019) require an assessment and monitoring of potential leakage pathways; quantification of inputs, losses, and storage through a mass balance approach; and documentation of steps and approaches used to establish these quantities. Primary differences relate to the terms in their respective mass balance equations, how each defines leakage, and when facilities may discontinue reporting.

will be substantially similar to the quantity captured. However, to verify that the CO<sub>2</sub> captured at the emitting EGU is sent to a geologic sequestration site, we are leveraging regulatory requirements under the GHGRP. The BSER is determined to be adequately demonstrated based solely on geologic sequestration that is not associated with EOR. However, EGUs also have the compliance option to send CO<sub>2</sub> to EOR facilities that report under GHGRP subpart RR or proposed GHGRP subpart VV. We also emphasize that this proposal does not involve regulation of downstream recipients of captured CO<sub>2</sub>. That is, the regulatory standard applies exclusively to the emitting EGU, not to any downstream user or recipient of the captured CO<sub>2</sub>. The requirement that the emitting EGU assure that captured CO<sub>2</sub> is managed at an entity subject to the GHGRP requirements is thus exclusively an element of enforcement of the EGU standard. This will avoid duplicative monitoring, reporting, and verification requirements between this proposal and the GHGRP, while also ensuring that the facility injecting and sequestering the CO<sub>2</sub> (which may not necessarily be the EGU) maintains responsibility for these requirements. Similarly, the existing regulatory requirements applicable to geologic sequestration are not part of the proposed rule.

The EPA requests comment on the following questions related to additional monitoring and reporting of hourly captured CO<sub>2</sub> under 40 CFR part 75: (a) should EGUs with carbon capture technologies be required to monitor and report the hourly captured CO<sub>2</sub> mass emissions under 40 CFR part 75, (b) if EGUs with carbon capture technologies are not required to monitor and report the hourly captured CO<sub>2</sub> mass emissions, the calculation procedures for total heat input and NO<sub>x</sub> rate in appendix F to 40 CFR part 75 may no longer provide accurate results; therefore, what changes might be necessary to accurately determine total heat input and NO<sub>x</sub> rate, (c) to ensure accurate and complete accounting of CO<sub>2</sub> mass emissions emitted to the atmosphere and captured for use or sequestration, at what locations should CO<sub>2</sub> concentration and stack gas flow be monitored, and should other values also be monitored at those locations, (d) are there quality assurance activities outside of those required under 40 CFR part 75 for CO<sub>2</sub> concentration monitors and stack gas flow monitors that should be required of the monitors to accurately and reliably measure captured CO<sub>2</sub> mass emissions, and (e) what monitoring plan, quality assurance, and emissions

data should be reported to the EPA to support evaluation and ensure consistent and accurate data as it relates to CO<sub>2</sub> emissions capture.

The 40 CFR part 75 monitoring and reporting provisions require hourly reporting of total gross electricity output, including useful thermal output, but do not require the reporting of net electricity output. The EPA requests comment on the following questions related to reporting of net electricity output: (a) should EGUs be required to measure and report total net electricity output, including useful thermal output, under 40 CFR part 75, (b) what guidance should the EPA provide on how to measure and apportion net electricity output, (c) should EGUs measure and report net electricity output at the unit or facility level, and (d) what monitoring plan, quality assurance, and output data should be reported to the EPA to support evaluation and ensure consistent and accurate data as it relates to total net electricity output.

To calculate CO<sub>2</sub> mass emissions at a fossil fuel-fired boiler, the EGU typically measures CO<sub>2</sub> concentration and flue gas flow rate as the exhaust gases from combustion pass through the stack (or duct). Under 40 CFR part 75, EGUs must complete regular performance tests on the flue gas flow monitor based on EPA Reference Method 2 or its allowable alternatives that are provided in 40 CFR part 60, appendices A–1 and A–2. In general, the allowable alternative measurement methods reduce or eliminate the potential overestimation of stack gas flow rate that results from the use of EPA Reference Method 2 when the specific flow conditions (*e.g.*, angular flow) are present in the stack. However, EGUs with stack gas flow monitors are not required to use the allowable alternative measurement methods and EGUs may change methods at any time. The EPA requests comment on the following questions related to the use of EPA Reference Method 2 and its allowable alternatives for stack gas flow monitors under 40 CFR part 75: (a) should or under what conditions should EGUs be required to conduct a flow study and choose the appropriate EPA reference method for each stack gas flow monitor based on the results of the study, (b) once an EGU selects the use of an EPA reference method for a stack gas flow monitor, regardless of the basis for that selection, should the EGU be required to continue using the same EPA reference method until a flow study or other engineering justification is made to change the EPA reference method, and (c) what additional monitoring plan, quality assurance, and emissions data should be

reported to the EPA to support evaluation and ensure consistent and accurate data as it relates stack gas flow rate and performance of the stack gas flow monitor.

#### *E. Compliance Flexibilities*

In developing these proposed emission guidelines, the EPA has heard from stakeholders seeking flexibility in complying with standards of performance under these emission guidelines. In particular, stakeholders have requested that the EPA allow states to include flexibilities such as averaging and market-based mechanisms in their State plans, as has been permitted under prior EPA rules. The EPA is proposing to allow states to incorporate averaging and emission trading into their State plans, provided that states ensure that use of these compliance flexibilities will result in a level of emission performance by the affected EGUs that is equivalent to each source individually achieving its standard of performance. As discussed below, the EPA also recognizes that the structure of the proposed subcategories and associated degrees of emission limitation, as well as the unique characteristics of the existing sources in the relevant source categories, will likely require that certain limitations or conditions be placed on the incorporation of averaging and trading in order to ensure that such standards are at least as stringent as the EPA's BSER. This section discusses considerations related to such compliance flexibilities in the context of this particular rule and set of regulated sources—existing steam generating units and existing combustion turbine EGUs—and solicits comment on whether certain types of averaging and trading maintain the stringency of the EPA's BSER.

#### 1. Overview

In the proposed subpart Ba revisions, “Adoption and Submittal of State Plans for Designated Facilities: Implementing Regulations Under Clean Air Act Section 111(d)” (87 FR 79176; December 23, 2022), the EPA explained that under its proposed interpretation of CAA section 111, each State is permitted to adopt measures that allow its sources to meet their emission limits in the aggregate when the EPA determines, in any particular emission guideline, that it is appropriate to do so given, *inter alia*, the pollutant, sources, and standards of performance at issue. Thus, the EPA has proposed to return to its longstanding position that CAA section 111(d) authorizes the EPA to approve State plans that achieve the requisite

emission limitation through aggregate reductions from their sources, including through trading or averaging, where appropriate for a particular emission guideline and consistent with the intended environmental outcomes of the BSER.<sup>658</sup> See 87 FR 79208 (December 23, 2022).

Consistent with the return to this longstanding position, the EPA is proposing to allow states to incorporate trading and averaging in their State plans under these emission guidelines. States would not be required to allow for such compliance mechanisms in their State plans but could provide for trading and averaging for existing steam generating units and/or existing combustion turbines at their discretion.<sup>659</sup> As discussed in section XII.C of this preamble, State plans must demonstrate that they achieve a level of emission performance by affected EGUs that is consistent with the application of the BSER. The EPA is therefore proposing that, in order to find that a State plan that includes trading or averaging is “satisfactory,” it must demonstrate that it maintains the level of emission performance for the source category that would be achieved if each affected EGU was individually achieving its presumptive standard of performance, after allowing for any application of RULOF. In the case of averaging, discussed in section XII.E.3 of this preamble, an equivalence demonstration would be relatively straightforward. For emission trading programs, ensuring equivalent emission

<sup>658</sup> The EPA has authorized trading or averaging as compliance methods in several emission guidelines. See, *e.g.*, 40 CFR 60.33b(d)(2) (emission guidelines for municipal waste combustors permit state plans to establish trading programs for NO<sub>x</sub> emissions); 70 FR 28606, 28617 (May 18, 2005) (Clean Air Mercury Rule authorized trading) (vacated on other grounds); 40 CFR 60.24(b)(1) (subpart B CAA section 111 implementing regulations promulgated in 2005 allow States' standards of performance to be based on an “allowance system”); 80 FR 64662, 64840 (October 23, 2015) (CPP authorizing trading or averaging as a compliance strategy). In the recent supplemental proposal to promulgate emission guidelines for the oil and natural gas industry, the EPA has also proposed to allow States to permit sources to demonstrate compliance in the aggregate. 87 FR 74702, 74812 (December 6, 2022).

<sup>659</sup> The EPA notes that these flexibilities, trading and averaging, would be used to comply with standards of performance, rather than to establish standards of performance in the first instance. In contrast to the RULOF mechanism, which, as described in section XI.D.2 of this preamble, States may use to establish different standards of performance than those described by the EPA's BSER, trading or averaging may be used to demonstrate compliance with already established standards of performance. That is, States incorporating trading or averaging would not need to undergo a RULOF demonstration for sources participating in trading or averaging programs.

performance in the aggregate may be more difficult.

Section XII.E.2 of this preamble discusses considerations related to the appropriateness of trading and averaging for affected EGUs in certain circumstances, *e.g.*, affected EGUs with proposed BSERs based on routine methods of operation and maintenance. Section XII.E.2 of this preamble also discusses program design examples as well as potential design elements and takes comment on whether these or other designs or design elements could ensure that use of emission trading or averaging does not undermine the stringency of the EPA's BSER. However, the Agency is not proposing a presumptively approvable averaging or trading approach at this time.

The EPA also notes that States that incorporate trading or averaging into their State plans would need to conduct meaningful engagement on this aspect of their plans with pertinent stakeholders, just as they would need to do for any other part of a plan. As discussed in greater detail in section XII.F.1.b of this preamble, meaningful engagement provides an opportunity for communities most affected by and vulnerable to the impacts of a plan to provide input, including input on any impacts resulting from the use of trading or averaging for compliance.

## 2. Emission Trading

The EPA is proposing to allow State plans to include emission trading programs as a compliance flexibility for affected existing EGUs under these emission guidelines and is taking comment on whether certain types of trading programs could satisfy the requirement to maintain equivalence with source-specific application of standards of performance. This section discusses considerations related to affected EGUs under these emission guidelines and how a State could potentially incorporate a rate-based trading program or a mass-based trading program in a way that preserves the stringency of the BSER.

### a. Considerations for Emission Trading in State Plans

Emission trading has been used to achieve required emission reductions in the power sector for nearly 3 decades. In Title IV of the Clean Air Act Amendments of 1990, Congress specified the design elements for the Acid Rain Program, a 48-State allowance trading program to reduce SO<sub>2</sub> emissions and the resulting acid precipitation. Building on the success of that first allowance trading program as a tool for addressing multi-State air

pollution issues, the EPA has promulgated and implemented multiple allowance trading programs since 1998 for SO<sub>2</sub> or NO<sub>x</sub> emissions to address the requirements of the CAA's good neighbor provision with respect to successively more stringent NAAQS for fine particulate matter and ozone. The EPA currently administers eight power sector emission trading programs that differ in pollutants, geographic regions, covered time periods, and levels of stringency.<sup>660</sup> Annual progress reports demonstrate that EPA trading programs have been successful in mitigating the problems they were designed to address, exhibiting significant emission reductions and extraordinarily high levels of compliance.<sup>661</sup> In addition, several states have implemented regional or intrastate CO<sub>2</sub> emissions trading programs to address GHG emissions from the power sector (the RGGI and California trading programs, respectively).

In general, emission trading programs provide flexibility for EGUs to secure emission reductions at a lower cost relative to more prescriptive forms of regulation. Emission trading can allow the owners and operators of EGUs to prioritize emission reduction actions where they are the quickest or cheapest to achieve while still meeting electricity demand and broader environmental and economic performance goals. These benefits are heightened where there is a diverse set of emission sources (*e.g.*, variation in technology, fuel type, age, and operating parameters) included in an emission trading program. This diversity of sources is typically accompanied by differences in marginal emission abatement costs and operating parameters, resulting in heterogeneity in economic emission reduction opportunities that can be optimized through the compliance flexibility provided through emission trading. In addition, the EPA has observed, with the support of multiple independent analyses, that there is significant

evidence that implementation of trading programs prompted greater innovation and deployment of clean technologies that reduce emissions and control costs.<sup>662</sup>

Emission trading may also provide important benefits. Having flexibility to prioritize the most cost effective emission reductions among affected EGUs may reduce the cost of compliance as well as provide flexibility for fleet management, while achieving the requisite level of emission performance. In particular, emission trading may provide some short-term operational flexibility.

At the same time, there may be challenges for implementing an emission trading program, especially in the context of the emission guidelines that the EPA is proposing here. The EPA notes that while the proposed emission guidelines include both steam generating units and combustion turbines, the fleet of affected steam generating units is expected to shrink under BAU projections (see section IV.F of this preamble), and the number of existing combustion turbines subject to these emission guidelines is limited (see section XI.C of this preamble) given the subcategory applicability thresholds. As a result, there is unlikely to be as much diversity in cost and emission performance among affected emission sources (resulting in less diversity in emission reduction opportunities and marginal abatement costs) as seen in prior emission trading programs for the electric power sector.

The utility of trading under these emission guidelines may also be obviated somewhat by the subcategories that the EPA has proposed to establish for existing coal-fired steam generating units and existing gas combustion turbines. The specific subcategories proposed under these emission guidelines for steam generating units are designed to provide for much of the same operational flexibility as would be provided through trading; as a result, the EPA believes that it would not be appropriate to allow affected EGUs in certain subcategories—imminent-term and near-term coal-fired steam generating units and natural gas- and oil-fired steam generating units—to comply with their standards of performance through trading. Similarly, the EPA believes it would not be

<sup>660</sup> The six current CSAPR trading programs are the CSAPR NO<sub>x</sub> Annual Trading Program, CSAPR NO<sub>x</sub> Ozone Season Group 1 Trading Program, CSAPR SO<sub>2</sub> Group 1 Trading Program, CSAPR SO<sub>2</sub> Group 2 Trading Program, CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program, and CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program. The regulations for the six CSAPR programs are set forth at subparts AAAAA, BBBB, CCCCC, DDDDD, EEEEE, and GGGGG, respectively, of 40 CFR part 97. The regulations for the Texas SO<sub>2</sub> Trading Program are set forth at subpart FFFFF of 40 CFR part 97. The Acid Rain Program SO<sub>2</sub> trading program is set forth in Title IV of the Clean Air Act Amendments of 1990.

<sup>661</sup> Environmental Protection Agency (2021). Power Sector Programs—Progress Report. EPA. <https://www3.epa.gov/airmarkets/progress/reports/index.html>.

<sup>662</sup> LaCount, M.D., Haeuber, R.A., Macy, T.R., & Murray, B.A. (2021). Reducing Power Sector Emissions under the 1990 Clean Air Act Amendments: A Retrospective on 30 Years of Program Development and Implementation. Atmospheric Environment (Oxford, England: 1994), 245, 1–10. <https://doi.org/10.1016/j.atmosenv.2020.118012>.

appropriate to allow affected EGUs with less-stringent, source-specific standards based on RULOF to comply with those standards of performance through trading. As discussed in section X.D.3 of this preamble, the proposed BSER determinations for the imminent- and near-term coal-fired steam generating unit subcategories are designed to take into account factors such as operating horizon and load level (expressed as annual capacity factor) and, as a result, are based on routine methods of operation and maintenance. Natural gas- and oil-fired steam generating units also have proposed BSER determinations based on routine methods of operation and maintenance. An emission trading program that includes affected EGUs that have BSERs and resulting standards of performance based on limited expected emission reduction potential—or, in the case of affected EGUs for which states have invoked RULOF, less stringent standards of performance—may introduce the risk of undermining the intended stringency of the BSER for other facilities.

The EPA also believes that emission trading may be inappropriate for some subcategories of affected EGUs based on other, subcategory-specific reasons. Affected EGUs that receive the IRC section 45Q tax credit for permanent sequestration of CO<sub>2</sub> may have an overriding incentive to maximize both the application of the CCS technology and total electric generation, leading to source behavior that may be non-responsive to the economic incentives of a trading program. This consideration may be relevant for affected EGUs in the long-term coal-fired steam generating unit subcategory and the CCS combustion turbine subcategory that comply with their standards of performance using CCS. Additionally, the utilization applicability criterion for existing combustion turbines creates a barrier to emission trading under these emission guidelines. Specifically, existing combustion turbines that are greater than 300 MW qualify as affected EGUs and thus have applicable standards of performance only when they operate at an annual capacity factor of greater than 50 percent. When they operate at an annual capacity factor of 50 percent or less, they are not subject to standards of performance. The EPA believes that the fact that units may fall in or out of a trading program from year to year very likely precludes their inclusion in any such program as a practical matter.

The EPA requests comment on these challenges and on whether, in light of these and other considerations, emission trading should be permitted

for certain subcategories and not permitted for others, and on whether emission trading should be limited to within certain subcategories, and why. In the following sections, the EPA discusses potential rate-based and mass-based emission trading program approaches that could potentially be included in a State plan and solicits comment on applied implementation issues in the context of these proposed emission guidelines and the considerations discussed in this subsection XII.E.2.a of the preamble.

#### b. Rate-Based Emission Trading

A rate-based trading program allows affected EGUs to trade compliance instruments that are generated based on their emission performance. This section describes one method of how states could establish a rate-based trading program as part of a State plan. The EPA requests comment on whether this or another method of rate-based trading could demonstrate equivalent stringency as would be achieved if each affected EGU was achieving its standard of performance.

In this example, affected EGUs that perform at a lower emission rate (lb CO<sub>2</sub>/MWh) than their standard of performance would be issued compliance instruments that are denominated in one ton of CO<sub>2</sub>. A tradable instrument denominated in another unit of measure, such as a MWh, is not fungible in the context of a rate-based emission trading program. A compliance instrument denominated in MWh that is awarded to one affected EGU may not represent an equivalent amount of emissions credit when used by another affected EGU to demonstrate compliance, as the CO<sub>2</sub> emission rates (lb CO<sub>2</sub>/MWh) of the two affected EGUs are likely to differ. This may pose a challenge for states trying to demonstrate equivalence with the intended stringency of the BSER.

These compliance instruments could be transferred among affected EGUs, making them “tradable.” Compliance would be demonstrated for an affected EGU based on a combination of its reported CO<sub>2</sub> emission performance (in lb CO<sub>2</sub>/MWh) and, if necessary, the surrender of an appropriate number of tradable compliance instruments, such that the demonstrated lb CO<sub>2</sub>/MWh emission performance is equivalent to the rate-based standard of performance for the affected EGU.

Specifically, each affected EGU would have a particular standard of performance, based on the degree of emission limitation achievable through application of the BSER, with which it would have to demonstrate compliance.

Under a rate-based trading program, affected EGUs performing at a CO<sub>2</sub> emission rate below their standard of performance would be awarded compliance instruments at the end of each control period denominated in tons of CO<sub>2</sub>. The number of compliance instruments awarded would be equal to the difference between their standard of performance CO<sub>2</sub> emission rate and their actual reported CO<sub>2</sub> emission rate multiplied by their generation in MWh. Affected EGUs performing worse than their standard of performance would be required to obtain and surrender an appropriate number of compliance instruments when demonstrating compliance, such that their demonstrated CO<sub>2</sub> emission rate is equivalent to their rate-based standard of performance. Transfer and use of these compliance instruments would be accounted for with a rate adjustment as each affected EGU performs its compliance demonstration.

In general, rate-based emission trading can by design assure achievement of the requisite level of emission performance for affected sources, because reduced utilization and retirements are automatically accounted for in the award of the compliance instrument. By default, only operating affected EGUs could receive or participate in the trading of compliance instruments.

The EPA is seeking comment on whether rate-based emission trading might be appropriate under these emission guidelines, taking into consideration the discussion of the appropriateness of trading for certain subcategories in section XII.E.2.a of this preamble. In particular, the EPA requests comment on whether and how a rate-based emission trading program could be designed to ensure equivalent stringency as would be achieved if each participating affected EGU was achieving its source-specific standard of performance, given the structure of the proposed subcategories and their proposed BSERs. The EPA also requests comment on any other methods of rate-based trading that would preserve the stringency of the BSER.

#### c. Mass-Based Emission Trading

A mass-based trading program establishes a budget of allowable mass emissions for a group of affected EGUs, with tradable instruments (typically referred to as “allowances”) issued to affected EGUs in the amount equivalent to the emission budget. Each allowance would represent a tradable permit to emit one ton of CO<sub>2</sub>, with affected EGUs required to surrender allowances in a number equal to their reported CO<sub>2</sub>

emissions during each compliance period. This section describes one method of how states could establish a mass-based trading program as part of a State plan. The EPA requests comment on whether this or another method of mass-based trading could ensure equivalent stringency as would be achieved if each participating affected EGU was achieving its source-specific standard of performance.

As previously discussed, mass-based emission trading has been used in the power sector at the Federal, regional, and State levels for nearly 3 decades. Owners and operators of EGUs, utilities, and State agencies thus have extensive familiarity with mass-based emission trading, which could make the design and implementation of a mass-based trading program as part of a State plan relatively straightforward. However, this familiarity comes with an awareness on the part of states and the EPA of the need to tailor the design of a mass-based emission trading program to the situation in which it is applied. Past experience shows that emission budgets have often been overestimated when set many years in advance of the start of a program, as economic and technological conditions have changed significantly between the time the program was adopted and when compliance obligations begin. Projecting affected EGU fleet composition and utilization beyond the relative near term has become increasingly challenging, driven by factors including changes in relative fuel prices and continued rapid improvement in the cost and performance of wind and solar generation, along with new incentives for technology deployment provided by the IJA and the IRA. Critically, if affected EGUs reduce utilization or exit the source category, the remaining affected EGUs face a reduced or eliminated obligation to improve their emission performance. In this case, the emission budget would be established at a level such that the sources would not be collectively meeting the required level of emission performance commensurate with each source achieving its rate-based standard of performance.

One program design states might employ to ensure that affected EGUs participating in a mass-based trading program continue to meet the level of emission performance prescribed by category-wide, source-specific implementation of the rate-based standards of performance includes regularly adjusting emission budgets to account for sources that cease operations or change their utilization. One budget adjustment method that the

EPA has developed is dynamic budgeting, as applied in the Good Neighbor Plan,<sup>663</sup> in which budgets are updated annually based on recent historical generation. States could apply a similar dynamic budgeting process to mass-based trading implemented under these emission guidelines. In this context, states could establish an emission budget based on the unit-specific standards of performance of the participating affected EGUs, as described in section XII.D of this preamble, multiplied by each affected EGU's recent historical generation. The emission budget would be updated regularly to account for units that reduce utilization or cease operation. This is one way that states could assure achievement of the requisite level of emission performance for affected EGUs through mass-based trading, though the EPA acknowledges that existing State or regional mass-based trading programs may have developed other regular emission budget adjustment methods that could potentially provide similar assurance and might provide a model that could be applied for trading under these emission guidelines.

The EPA also acknowledges that other methods could be used to establish an emission budget that, in conjunction with the aforementioned dynamic budget approach, could achieve at least the requisite level of emission performance consistent with application of the BSER. States could use a single rate at the level of the subcategory or source category that is, for example, as stringent as the most controlled unit in the group (based on unit-specific standards of performance as defined in section XII.D.1) to establish the emission budget.

The EPA is seeking comment on whether mass-based emission trading might be appropriate under these emission guidelines, taking into consideration the discussion of the appropriateness of trading for certain subcategories in section XII.E.2.a of this preamble. In particular, the EPA requests comment on whether and how a mass-based emission trading program could be designed to ensure equivalent stringency as each participating affected EGU achieving its source-specific standard of performance, given the structure of the proposed subcategories and their proposed BSERs. The EPA is also seeking comment on whether the method of mass-based emission trading using dynamic budgeting, as discussed

in this section, might be appropriate under these emission guidelines. The EPA is also seeking comment on other approaches or features that could ensure that emission budgets reflect the stringency that would be achieved through unit-specific application of rate-based standards of performance.

#### d. General Emission Trading Program Implementation Elements

The EPA notes that states would need to establish procedures and systems necessary to implement and enforce an emission trading program, whether it is rate-based or mass-based, if they elect to incorporate emission trading into their State plans. This would include, but is not limited to, establishing compliance timeframes and the mechanics for demonstrating compliance under the program (*e.g.*, surrender of compliance instruments as necessary based on monitoring and reporting of CO<sub>2</sub> emissions and generation); establishing requirements for continuous monitoring and reporting of CO<sub>2</sub> emissions and generation; and developing a tracking system for tradable compliance instruments. Additionally, for states implementing a mass-based emission trading program, State plans would need to specify how allowances would be distributed to participating affected EGUs.

The EPA acknowledges that the proposed dates as of which standards of performance would apply for sources covered by these emission guidelines differ by subcategory: January 1, 2030, for all steam generating units; January 1, 2032, for the hydrogen co-fired combustion turbine subcategory; and January 1, 2035, for the CCS combustion turbine subcategory. If trading is permitted for two or more of these sets of sources, this difference could potentially pose an implementation challenge where a trading program includes these sources. To address this issue, a program could, for example, begin in 2030 for steam generating units and bring in combustion turbine EGUs later, or states could delay implementation of a trading program to coincide with the later combustion turbine date. The Agency requests comment on potential ways to address this implementation issue in the context of a State plan, and whether this issue impacts the utility or feasibility of trading across subcategories.

The EPA is also requesting comment on whether and to what extent there would be a desire to capitalize on the EPA's existing reporting and compliance tracking infrastructure to support State implementation of an

<sup>663</sup> The final Good Neighbor Plan was signed by the Administrator on March 15, 2023. At this time, the final action has not yet been published in the **Federal Register**.

emission trading program included in a State plan.

#### e. Banking of Compliance Instruments

The EPA requests comment on whether State plans should be allowed to provide for banking of tradable compliance instruments (hereafter referred to as “allowance banking,” although it is relevant for both mass-based and rate-based trading programs). Allowance banking has potential implications for a trading program’s ability to maintain the requisite stringency of the standards of performance. The EPA recognizes that allowance banking—that is, permitting allowances that remain unused in one control period to be carried over for use in future control periods—may provide incentives for early emission reductions, promote operational flexibility and planning, and facilitate market liquidity. However, the EPA has observed that unrestricted allowance banking from one control period to the next (absent provisions that adjust future control period budgets to account for banked allowances) may result in a long-term allowance surplus that has the potential to undermine a trading program’s ability to ensure that, at any point in time, the affected sources are achieving the required level of emission performance. In addition to requesting comment on whether the EPA should permit allowance banking, the EPA requests comment on the treatment of banked allowances, specifically whether all or only some portion of an allowance bank could be carried over for use in future control periods or if additional program design elements would be necessary to accommodate allowance banking.

#### f. Interstate Emission Trading

The EPA is requesting comment on whether, and under what circumstances or conditions, to allow interstate emission trading under these emission guidelines. Given the interconnectedness of the power sector and given that many utilities operate in multiple states, interstate emission trading may increase compliance flexibility. For interstate emission trading programs to function successfully, all participating states would need to, at a minimum, use the same form of trading and have identical trading program requirements. There are many requirements for program reciprocity and approvability that would need to be established in the emission guidelines, in addition to providing mechanisms for submission and EPA review of State plans that include interstate trading mechanisms. Given the increased level of program

complexity that would be necessary to accommodate interstate trading and the operational flexibilities already provided by the structure of the proposed subcategories and their proposed BSERs, the EPA requests comment on whether there is utility in providing for it under these emission guidelines. In addition, the EPA requests comment on the information, guidance, and requirements the EPA would need to provide for states to implement successful interstate emission trading programs.

#### 3. Rate-Based Averaging

The EPA is proposing to allow State plans to include rate-based averaging as a compliance flexibility for affected EGUs under these emission guidelines. This section discusses how states could potentially incorporate a rate-based averaging program in a way that preserves the stringency of the EPA’s BSER as well as some considerations related to incorporating averaging in State plans. The EPA is seeking comment on one potential method, described in this section, as well as other methods that could maintain the required level of emission performance equivalent to each source individually achieving its standard of performance.

Averaging allows multiple affected EGUs to jointly meet a rate-based standard of performance. Affected EGUs participating in averaging could, for example, demonstrate compliance through an effective CO<sub>2</sub> emission rate that is based on a gross generation-based weighted average of the required standards of performance of the affected EGUs that participate in averaging. The scope of such averaging could apply at the facility level or the owner or operator level. This method for calculating a composite rate could demonstrate equivalence with source-specific standards of performance.

Averaging can provide potential benefits. First, it offers some flexibility for sources to target cost effective reductions at any affected EGU. For example, owners or operators of affected EGUs might target installation of emission control approaches at units that operate more. Second, averaging at the facility level provides greater ease of compliance accounting for affected EGUs with a complex stack configuration (such as a common- or multi-stack configuration). In such instances, unit-level compliance involves apportioning reported emissions to individual affected EGUs that share a stack based on electricity generation or other parameters.

However, the EPA notes that the subcategory approach in these emission

guidelines already provides significant operational flexibility for affected EGUs, potentially making the provision of further flexibility through averaging redundant or inappropriate, especially at the owner or operator level.

The EPA is seeking comment on the utility of rate-based averaging as a compliance flexibility, as well as on the illustrative method for developing a composite standard of performance for the purposes of rate-based averaging. The EPA is also seeking comment on any other considerations related to rate-based averaging, including whether the scope of averaging should be limited to a certain level of aggregation (*e.g.*, to facility-level rate-based averaging) or to certain subcategories.

#### 4. Relationship to Existing State Programs

The EPA recognizes that many states have adopted binding policies and programs (with both a supply-side and demand-side focus) under their own authorities that have significantly reduced CO<sub>2</sub> emissions from EGUs, that these policies will continue to achieve future emission reductions, and that states may continue to adopt new power sector policies addressing GHG emissions. States have exercised their power sector authorities for a variety of purposes, including economic development, energy supply and resilience goals, conventional and GHG pollution reduction, and generating allowance proceeds for investments in communities disproportionately impacted by environmental harms. The scope and approach of EPA’s proposed emission guidelines differs significantly from the range of policies and programs employed by states to reduce power sector CO<sub>2</sub> emissions, and this proposal operates more narrowly to improve the CO<sub>2</sub> emission performance of a subset of EGUs within the broader electric power sector. The Agency recognizes the importance of State programs and their potential to reduce power sector CO<sub>2</sub> emissions through a range of strategies broader than those proposed here pursuant to CAA section 111(d). The EPA seeks comment on whether there are any elements of the proposed emission guidelines that might interfere with the implementation of State requirements that limit CO<sub>2</sub> emissions from EGUs that may be subject to the proposed emission guidelines.

#### F. State Plan Components and Submission

This section describes the proposed requirements for the contents of State plans, the proposed timing of State plan submissions, and the EPA’s review of

and action on State plan submissions. This section also discusses issues related to the applicability of a Federal plan and timing for the promulgation of a Federal plan.

As explained earlier in this preamble, the requirements of 40 CFR part 60, subpart Ba, govern State plan submissions under these emission guidelines. Where the EPA is proposing to add to, supersede, or otherwise vary the requirements of subpart Ba for the purposes of State plan submissions under these particular emission guidelines,<sup>664</sup> those proposals are addressed explicitly in section XII.F.1.b on specific State plan requirements and throughout this preamble. Unless expressly amended or superseded in these proposed emission guidelines, the provisions of subpart Ba would apply.

### 1. Components of a State Plan Submission

The EPA is proposing that a State plan must include a number of discrete components. These proposed plan components include those that apply for all State plans pursuant to 40 CFR part 60, subpart Ba. The EPA is also proposing additional plan components that are specific to State plans submitted pursuant to these emission guidelines. For example, the EPA is proposing plan components that are necessary to implement and enforce the specific types of standards of performance for affected EGUs that would be adopted by a State and incorporated into its State plan.

#### a. General Components

The CAA section 111 implementing regulations at 40 CFR part 60 subpart Ba provide separate lists of administrative and technical criteria that must be met in order for a State plan submission to be deemed complete. The EPA's proposed revisions to subpart Ba would add one item to the list of administrative criteria related to meaningful engagement (element 9 in the list below).<sup>665</sup> If that criterion is finalized as proposed, the complete list of applicable administrative completeness criteria for State plan submissions would be: (1) A formal letter of submittal from the Governor or the Governor's designee requesting EPA approval of the plan or revision thereof; (2) Evidence that the State has adopted the plan in the State code or body of regulations; or issued the permit, order, or consent agreement (hereafter

“document”) in final form. That evidence must include the date of adoption or final issuance as well as the effective date of the plan, if different from the adoption/issuance date; (3) Evidence that the State has the necessary legal authority under State law to adopt and implement the plan; (4) A copy of the official State regulation(s) or document(s) submitted for approval and incorporated by reference into the plan, signed, stamped, and dated by the appropriate State official indicating that they are fully adopted and enforceable by the State. The effective date of the regulation or document must, whenever possible, be indicated in the document itself. The State's electronic copy must be an exact duplicate of the hard copy. For revisions to the approved plan, the submission must indicate the changes made to the approved plan by redline/strikethrough; (5) Evidence that the State followed all applicable procedural requirements of the State's regulations, laws, and constitution in conducting and completing the adoption/issuance of the plan; (6) Evidence that public notice was given of the plan or plan revisions with procedures consistent with the requirements of 40 CFR 60.23, including the date of publication of such notice; (7) Certification that public hearing(s) were held in accordance with the information provided in the public notice and the State's laws and constitution, if applicable and consistent with the public hearing requirements in 40 CFR 60.23; (8) Compilation of public comments and the State's response thereto; and (9) Evidence of meaningful engagement, including a list of pertinent stakeholders, a summary of the engagement conducted, and a summary of stakeholder input received.

Pursuant to subpart Ba, the technical criteria required for all plans must include each of the following:<sup>666</sup> (1) Description of the plan approach and geographic scope; (2) Identification of each designated facility (*i.e.*, affected EGU); identification of standards of performance for each affected EGU; and monitoring, recordkeeping, and reporting requirements that will determine compliance by each designated facility; (3) Identification of compliance schedules and/or increments of progress; (4) Demonstration that the State plan submission is projected to achieve emission performance under the applicable emission guidelines; (5) Documentation of State recordkeeping and reporting requirements to determine

the performance of the plan as a whole; and (6) Demonstration that each standard is quantifiable, permanent, verifiable, enforceable, and non-duplicative.

#### b. Specific State Plan Requirements

To ensure that State plans submitted pursuant to these emission guidelines are consistent with the requirements of subpart Ba, the EPA is proposing regulatory requirements that would apply to all affected EGUs subject to a standard of performance under a State plan pursuant to these proposed emission guidelines, as well as requirements that apply to affected EGUs within specific subcategories. Standards of performance for affected EGUs included in a State plan must be quantifiable, verifiable, permanent, enforceable, and non-duplicative. Additionally, per CAA section 302(l), standards of performance must be continuous in nature. Additional proposed State plan requirements include:

- Identification of affected EGUs and the subcategory to which each affected EGU is assigned;
- Identification of standards of performance for each affected EGU in lb CO<sub>2</sub>/MWh-gross basis, including provisions for implementation and enforcement of such standards;
- Identification of enforceable increments of progress and milestones, as required for affected EGUs within the applicable subcategory, included as enforceable elements of a State plan;
- If relevant, identification of applicable enforceable requirements that are prerequisites for inclusion of an affected EGU in a specific subcategory, such as enforceable commitments to cease operations by a specified date or to limit annual capacity factor, where a State and the owner or operator of an affected EGU have chosen to rely on such commitments in order for the affected EGU to be included in a specific subcategory, included as enforceable elements of a State plan; and
- Identification of applicable monitoring, reporting, and recordkeeping requirements for affected EGUs.

The proposed emission guidelines include requirements pertaining to the methodologies states must use for establishing a presumptively approvable standard of performance for an affected EGU within a respective subcategory. These proposed methodologies are specified for each of the subcategories of affected EGUs in section XII.D.1 of this preamble.

<sup>664</sup> 40 CFR 60.20a(a)(1).

<sup>665</sup> 87 FR 79176, 79204 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a(g)(2)).

<sup>666</sup> 40 CFR 60.27a(g)(3).



The EPA notes that standards of performance for affected EGUs in a State plan must be representative of the level of emission performance that results from the application of the BSER in these emission guidelines. As discussed in section XII.C of this preamble, in order for the EPA to find a State plan “satisfactory,” that plan must achieve the level of emission performance that would result if each affected source was achieving its presumptive standard of performance, after accounting for any application of RULOF. That is, while states have the discretion to establish the applicable standards of performance for affected sources in their State plans, the structure and purpose of CAA section 111 require that those plans achieve an equivalent level of emission performance as applying the EPA’s presumptive standards of performance to those sources (again, after accounting for any application of RULOF).

The proposed emission guidelines also include requirements that apply to states when they invoke RULOF in applying a less stringent standard of performance for an affected EGU than the presumptively approvable standard of performance. Such requirements include a demonstration by the State of why an affected EGU for which the State invokes RULOF cannot reasonably apply the BSER. The State would also be required to demonstrate where and how it considered the potential pollution impacts and benefits of control to communities most affected by and vulnerable to emissions from the designated facility. The EPA expects that states would identify these communities, gather information about the potential pollution impacts and benefits of control, and document how they have considered that information in setting source-specific standards of performance for RULOF sources through their meaningful engagement processes.

In addition to consideration of impacts on and benefits to affected communities in the context of invoking RULOF for particular sources, the proposed revisions to the CAA section 111 subpart Ba implementing regulations include requirements for public engagement on overall State plan development. These requirements are intended to ensure robust and meaningful public involvement in the plan development process and to ensure that those who are most affected by and vulnerable to the impacts of a plan will share in the benefits of the plan and are protected from being adversely impacted. The proposed requirements are in addition to the existing public notice requirements under subpart Ba and, if finalized, would apply to State

plan development in the context of these emission guidelines.

The fundamental purpose of CAA section 111 is to reduce emissions from categories of stationary sources that cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Therefore, a key consideration in the State’s development of a State plan is the potential impact of the proposed plan requirements on public health and welfare. Meaningful engagement is a corollary to the longstanding requirement for public participation, including through public hearings, in the course of State plan development under CAA section 111.<sup>667</sup> A robust and meaningful engagement process is critical to ensuring that the entire public has an opportunity to participate in the State plan development process and that states understand and consider the full range of impacts of a proposed plan.

In the subpart Ba revisions of December 2022, the EPA proposed to define meaningful engagement as:

[T]imely engagement with pertinent stakeholder representation in the plan development or plan revision process. Such engagement must not be disproportionate in favor of certain stakeholders. It must include the development of public participation strategies to overcome linguistic, cultural, institutional, geographic, and other barriers to participation to assure pertinent stakeholder representation, recognizing that diverse constituencies may be present within any particular stakeholder community. It must include early outreach, sharing information, and soliciting input on the State plan.<sup>668</sup>

The EPA proposed to define that pertinent stakeholders “include but are not limited to, industry, small businesses, and communities most affected by and/or vulnerable to the impacts of the plan or plan revision.”<sup>669</sup> The preamble to the proposed revisions to subpart Ba notes that “increased vulnerability of communities may be attributable, among other reasons, to both an accumulation of negative and lack of positive environmental, health, economic, or social conditions within these populations or communities.”<sup>670</sup>

In the context of these emission guidelines, the air pollutant of concern is greenhouse gases and the air pollution is elevated concentrations of these gases in the atmosphere, which

result in warming temperatures and other changes to the climate system that are leading to serious and life-threatening environmental and human health impacts. Thus, one set of impacts on communities that states should consider in identifying pertinent stakeholders is climate change impacts, including increased incidence of drought and flooding, damage to crops and disruption of associated food, fiber, and fuel production systems, increased incidence of pests, increased incidence of heat-induced illness, and impacts on water availability and water quality.

These and other such climate change-related impacts can have a disproportionate impact on communities and populations depending on, inter alia, accumulation of negative and lack of positive environmental, health, economic, or social conditions. The Agency therefore expects states’ pertinent stakeholders to include not only owners and operators of affected EGUs but also communities within the State that are most affected by and/or vulnerable to the impacts of climate change, including those exposed to more extreme drought, flooding, and other severe weather impacts, including extreme heat and cold (states should refer to section III of this preamble, on climate impacts, to assist them in identifying their pertinent stakeholders).

Additionally, communities near affected EGUs may also be affected by a State plan or plan revision due to impacts associated with implementation of that plan. For example, communities located near affected EGUs may be impacted by construction and operation of infrastructure required under a State plan. Activities related to the construction and operation of new natural gas, CCS, and hydrogen pipelines may impact individuals and communities both locally and at larger distances from affected EGUs but near any associated pipelines. Thus, communities near affected EGUs and communities near pipelines constructed pursuant to State plan requirements should be considered pertinent stakeholders and included in meaningful engagement.

The EPA also acknowledges that employment at affected EGUs (including employment in operation and maintenance as well as in construction for installation of pollution control technology) is impacted by power sector trends on an ongoing basis, and states may choose to take energy communities into consideration as part of meaningful engagement. A variety of Federal

<sup>667</sup> 40 CFR 60.23(c)–(g); 40 CFR 60.23a(c)–(h).

<sup>668</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA–HQ–OAR–2021–0527–0002 (proposed revisions at 40 CFR 60.21a(k)).

<sup>669</sup> 87 FR 79176, 79191 (December 23, 2022), Docket ID No. EPA–HQ–OAR–2021–0527–0002 (proposed revisions at 40 CFR 60.21a(l)).

<sup>670</sup> 87 FR 79176, 79191 (December 23, 2022).

programs are available to support these communities.<sup>671</sup>

In some cases, an affected EGU may be located near State or Tribal borders and impact communities in neighboring states or Tribal lands. In such cases, the EPA believes it could be reasonable for a State to identify pertinent stakeholders in the neighboring State or Tribal land and to work with the relevant air pollution control authority to conduct meaningful engagement that addresses cross-border impacts. The EPA solicits comment on how meaningful engagement should apply to pertinent stakeholders outside a State's borders.

It is important for states to recognize and engage the communities most affected by and/or vulnerable to the impacts of a State plan, particularly as these communities may not have had a voice when the affected EGUs were originally constructed. Consistent with the long-standing requirements for public engagement in State plan development, states should design meaningful engagement to ensure that all pertinent stakeholders are able to provide input on how affected EGUs in their State comply with their State plan requirements pursuant to these emission guidelines. Because these emission guidelines address air pollution that becomes well mixed and is long-lived in the atmosphere, the EPA expects states will consider communities and populations within the State that are both most impacted by particular affected EGUs and associated pipelines and that will be most affected by the overall stringency of State plans. (Note that the EPA addresses consideration of impacts of particular sources in the context of RULOF in section XII.D.2.c of this preamble.)

During the Agency's pre-proposal outreach, some environmental justice organizations and community representatives raised strongly held concerns about the potential health,

environmental, and safety impacts of CCS. The EPA believes that any deployment of CCS can and should take place in a manner that is protective of public health, safety, and the environment, and that includes early and meaningful engagement with affected communities and the public. As stated in the Council on Environmental Quality's (CEQ) February 2022 Carbon Capture, Utilization, and Sequestration Guidance, "the successful widespread deployment of responsible CCUS will require strong and effective permitting, efficient regulatory regimes, meaningful public engagement early in the review and deployment process, and measures to safeguard public health and the environment."<sup>672</sup>

As discussed in section V.C.3 of this preamble, the EPA is required to consider nonair quality health and environmental impacts, along with other considerations, in determining the BSER for both new and existing affected EGUs. In developing this proposed rulemaking, the EPA heard and carefully considered concerns expressed by affected communities regarding the possible impacts of CCS and hydrogen infrastructure in the context of selecting the proposed BSER. After weighing any adverse nonair quality health and environmental impacts of CCS and hydrogen co-firing along with the other BSER considerations, including the significant amount of emission reductions that can be achieved, and the reasonableness of the control costs, the EPA decided to propose that CCS and hydrogen co-firing meet the qualifications for the BSER for certain subcategories of sources. See, for example, section X.D.1.a.iii of this preamble.

The EPA recognizes, however, that facility- and community-specific circumstances, including the existence of cumulative impacts affecting a community's resilience or where infrastructure buildout would necessarily occur in an already vulnerable community, may also exist. The meaningful engagement process is designed to identify and enable consideration of these and other facility- and community-specific circumstances. This includes consideration of facility- and community-specific concerns with emissions control systems, including CCS and hydrogen co-firing. States should design meaningful engagement to elicit input from pertinent stakeholders on facility- and

community-specific issues related to implementation of emissions control systems generally, as well as on any considerations for particular systems.

If the revisions to subpart Ba are finalized as proposed, states would need to demonstrate in their State plans how they provided meaningful engagement with the pertinent stakeholders. This includes providing a list of the pertinent stakeholders, a summary of engagement conducted, and a summary of the stakeholder input provided, including information about the potential pollution impacts and benefits of control. As previously noted, the State must allow for balanced participation, including communities most vulnerable to the impacts of the plan. States must consider the best way to reach affected communities, which may include but should not be limited to notification through the internet. Other channels may include notice through newspapers, libraries, schools, hospitals, travel centers, community centers, places of worship, gas stations, convenience stores, casinos, smoke shops, Tribal Assistance for Needy Families offices, Indian Health Services, clinics, and/or other community health and social services as appropriate. The State should also consider any geographic, linguistic, or other barriers to participation in meaningful engagement for members of the public. If a State plan submission does not meet the required elements for notice and opportunity for public participation, including requirements for meaningful engagement, this may be grounds for the EPA to find the submission incomplete or to disapprove the plan. As discussed in section XII.F.2 of this preamble, the EPA is proposing to provide 24 months from the date of publication of final emission guidelines for State plan submission, which should allow states adequate time to conduct meaningful engagement.

The EPA is requesting comment on what assistance states and pertinent stakeholders may need in conducting meaningful engagement with affected communities to ensure that there are adequate opportunities for public input on decisions to implement emissions control technology (including but not limited to CCS or low-GHG hydrogen). The EPA is also requesting comment on any tools or methodologies that states may find helpful for identifying communities that are most affected by and vulnerable to emissions from affected EGUs under these emission guidelines. The EPA is also requesting comment on whether it would be useful for the Agency to promulgate minimum approvability requirements for

<sup>671</sup> An April 2023 report of the Federal Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (Energy Communities IWG) summarizes how the Bipartisan Infrastructure Law, CHIPS and Science Act, and Inflation Reduction Act have greatly increased the amount of Federal funding relevant to meeting the needs of energy communities, as well as how the Energy Communities IWG has launched an online Clearinghouse of broadly available Federal funding opportunities relevant for meeting the needs and interests of energy communities, with information on how energy communities can access Federal dollars and obtain technical assistance to make sure these new funds can connect to local projects in their communities. Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. "Revitalizing Energy Communities: Two-Year Report to the President" (April 2023). <https://energycommunities.gov/wp-content/uploads/2023/04/IWG-Two-Year-Report-to-the-President.pdf>.

<sup>672</sup> Carbon Capture, Utilization, and Sequestration Guidance, 87 FR 8808, 8809 (February 16, 2022), <https://www.govinfo.gov/content/pkg/FR-2022-02-16/pdf/2022-03205.pdf>.

meaningful engagement that are specific to these emission guidelines and, if so, what those requirements should be.

i. Specific State Plan Requirements for Existing Combustion Turbines Co-Firing Low-GHG Hydrogen

As discussed in section XI.C of this preamble, the EPA is proposing that the BSER for affected combustion turbine EGUs in the hydrogen co-fired subcategory is co-fired 30 percent low-GHG hydrogen by volume starting January 1, 2032, and 96 percent low-GHG hydrogen by volume starting January 1, 2038. Therefore, as discussed in section XII.D.1.c.ii of this preamble, the EPA is proposing a rate-based presumptive standard of performance for the hydrogen co-fired subcategory based on co-firing low-GHG hydrogen at these levels. However, CAA section 111 does not require that sources meet their applicable standards of performance by implementing the BSER. Therefore, affected combustion turbine EGUs in the hydrogen co-fired subcategory do not necessarily have to meet their standards of performance by co-firing hydrogen. However, should they choose to comply in this manner, the hydrogen that they co-fire to meet their standards of performance must be low-GHG hydrogen. Thus, the EPA is proposing that State plans require that affected EGUs in the hydrogen co-fired subcategory that meet their standards of performance by co-firing hydrogen demonstrate that they are co-firing low-GHG hydrogen. The EPA discusses its rationale for requiring low-GHG hydrogen to be used for compliance and its proposed definition of low-GHG hydrogen in sections VII.F.3.c.vi and VII.F.3.c.vii(F) of this preamble.

Section VII.K.3 of this preamble discusses the EPA's proposal to closely follow Department of Treasury protocols, which are currently under development, in determining how affected EGUs demonstrate compliance with the requirement to use low-GHG hydrogen. In the context of the proposed CAA section 111(b) rule for new combustion turbines, the EPA is taking comment on what forms of acceptable mechanisms and documentary evidence should be required for EGUs to demonstrate compliance with the obligation to co-fire low-GHG hydrogen, including proof of production pathway, overall emissions calculations or modeling results and input, purchasing agreements, contracts, and attribute certificates. The EPA is also taking comment, in the context of the CAA section 111(b) rule, on whether EGUs should be required to make fully transparent their sources of low-GHG

hydrogen and the corresponding quantities procured, as well as on whether the EPA should require EGUs to demonstrate that their hydrogen is exclusively from facilities that produce only low-GHG hydrogen, as a means of reducing burden and opportunities for double counting. The EPA proposed to mirror the requirements it finalizes for verification of low-GHG hydrogen for new combustion turbine EGUs, as discussed in section VII.K.3 of this preamble, in the State plan requirements for affected existing combustion turbine EGUs in the hydrogen co-fired subcategory under these emission guidelines. The EPA therefore requests comment on the proposed approaches for verifying that low-GHG hydrogen is used for complying with an applicable standard of performance discussed in section VII.K.3 of this preamble. Additionally, the EPA requests comment on any unique considerations regarding the implementation of such verification requirements through State plans, including whether any additional or different requirements may be necessary to ensure that affected existing combustion turbine EGUs in the hydrogen co-firing subcategory that co-fire hydrogen to meet their standards of performance co-fire with low-GHG hydrogen.

ii. Specific State Plan Requirements for Transparency and Compliance Assurance

The EPA is proposing or requesting comment on several requirements designed to help states ensure compliance by affected EGUs with standards of performance, as well as to assist the public in tracking increments of progress toward the final compliance date.

First, the EPA is requesting comment on whether to require that an affected EGU's enforceable commitment to permanently cease operations, when a State relies on that commitment for subcategory applicability (*e.g.*, a State elects to rely on an affected coal-fired steam-generating unit's commitment to permanently cease operations by December 31, 2034, to meet the applicability requirements for the near-term subcategory), must be in the form of an emission limit of 0 lb CO<sub>2</sub>/MWh that applies on the relevant date.<sup>673</sup> Such an emission limit would be included in a State regulation, permit, order, or other acceptable legal

instrument and submitted to the EPA as part of a State plan. If approved, the affected EGU would have a federally enforceable emission limit of 0 lb CO<sub>2</sub>/MWh that would become effective as of the date that the EGU permanently ceases operations. The EPA is requesting comment on whether such an emission limit would have any advantages or disadvantages for compliance and enforceability relative to the alternative, which is an enforceable commitment in a State plan to cease operation by a date certain.

Second, the EPA is proposing that State plans that cover affected coal-fired steam generating units within any subcategory that is based on the date by which a source elects to permanently cease operations (*i.e.*, imminent-term, near-term, medium-term) must include, in conjunction with an enforceable date, the requirement that each source comply with applicable State and Federal requirements for permanently ceasing operation of the EGU, including removal from its respective State's air emissions inventory and amending or revoking all applicable permits to reflect the permanent shutdown status of the EGU.

Third, the EPA is proposing that each State plan must require owners and operators of affected EGUs to establish publicly accessible websites, referred to here as a "Carbon Pollution Standards for EGUs website," to which all reporting and recordkeeping information for each affected EGU subject to the State plan would be posted. Although this information will also be required to be submitted directly to the EPA and the relevant State regulatory authority, the EPA is interested in ensuring that the information is made accessible in a timely manner to all pertinent stakeholders. The EPA anticipates that the owners or operators of a portion of the affected EGUs may already be posting comparable reporting and recordkeeping information to publicly available websites under the EPA's April 2015 Coal Combustion Residuals Rule,<sup>674</sup> such that the burden of this website requirement for these units could be minimal.

In particular, the EPA is proposing that the owners or operators of affected EGUs would be required to post to their websites their subcategory designations and compliance schedules, including for increments of progress and milestones, leading up to full

<sup>673</sup> As explained in section X of this preamble, an affected EGU's federally enforceable commitment to cease operations is not part of that EGU's standard of performance but is rather a prerequisite condition for subcategory applicability.

<sup>674</sup> See <https://www.epa.gov/coalash/list-publicly-accessible-internet-sites-hosting-compliance-data-and-information-required> for a list of websites for facilities posting Coal Combustion Rule compliance information.

compliance with the applicable standards of performance. Owners or operators would also be required to post to their websites any information or documentation needed to demonstrate that an increment of progress or milestone has been achieved. Similarly, the EPA is proposing that emissions data and other information needed to demonstrate compliance with a standard of performance would also be required to be posted to the Carbon Pollution Standards for EGUs website for an affected EGU in a timely manner. The EPA is proposing that all information required to be made publicly available on the Carbon Pollution Standards for EGUs website be posted within 30 business days of the information becoming available to or reported by the owner or operator of an affected EGU. Information would have to remain on the website for a minimum of 10 years. The EPA solicits comment on these timeframes for posting and information retention, as well as on any concerns related to confidential business information.

The EPA proposes that owners or operators of affected EGUs that are also subject to similar website reporting requirements for the Coal Combustion Residuals Rule may use an already established website to house the reporting and recordkeeping information necessary to satisfy its Carbon Pollution Standards for EGUs website requirements. The EPA solicits comment on other ways to reduce redundancy and burden while satisfying the objective of making it easier for pertinent stakeholders to access affected EGUs' reporting and recordkeeping information.

To make it easier for the public to find the relevant Carbon Pollution Standards for EGUs websites, the EPA is also proposing that a State must establish a website that displays the links to the websites for all affected EGUs in its State plan.

Fourth, to promote transparency and to assist the EPA and the public in assessing increments of progress under a State plan, the EPA is proposing that State plans must include a requirement that the owner or operator of each affected EGU must report any deviation from any federally enforceable State plan increment of progress or milestone within 30 business days after the owner or operator of the affected EGU knew or should have known of the event. In the report, the owner or operator of the affected EGU would be required to explain the cause or causes of the deviation and describe all measures taken or to be taken by the owner or operator of the EGU to cure the reported

deviation and to prevent such deviations in the future, including the timeframes in which the owner or operator intends to cure the deviation. The owner or operator of the EGU must submit the report to the State regulatory agency and post the report to the affected EGU's Carbon Pollution Standards for EGUs website.

Fifth, to aid all affected parties and stakeholders in implementing these emission guidelines, the EPA is explaining its intended approach to exercising its enforcement authorities to ensure compliance while addressing genuine risks to electric system reliability. In these emission guidelines, the EPA has included subcategories for coal-fired steam generating units that take into account the operating horizons of these units and has provided relatively long planning and compliance timeframes. The EPA's proposed emission guidelines for existing combustion turbines likewise provide extensive lead time to meet the proposed degrees of emission limitation and apply only to a portion of the fleet that exceeds certain capacity and utilization thresholds. The Agency therefore does not anticipate that either the need for certain coal-fired steam generating units and existing combustion turbines to install controls, or affected EGUs' preexisting decisions to permanently cease operations, will result in resource constraints that would adversely affect electric reliability.

Nonetheless, the EPA believes it is appropriate to provide accommodations for potential isolated instances in which unanticipated factors beyond an owner or operator's control, and ability to predict and plan for, could have an adverse, localized impact on electric reliability. In such instances, affected EGUs could find themselves in the position of either operating in noncompliance with approved, federally enforceable State plan requirements or halting operations and thereby potentially impacting electric reliability.

CAA section 113 authorizes the EPA to bring enforcement actions against sources in violation of CAA requirements, seeking injunctive relief, civil penalties and, in certain circumstances, other appropriate relief. The EPA also has the discretion to agree to negotiated resolutions, including administrative compliance orders ("ACOs") for achieving compliance with CAA requirements, that include expeditious compliance schedules with enforceable compliance milestones. The EPA does not generally speak to the intended scope of its enforcement efforts, particularly in advance of a

violation actually occurring. However, the EPA is explaining its intended approach to ACOs here to provide confidence both with respect to electric reliability and that emission reductions under these emission guidelines will occur as required under CAA section 111(d).

The EPA would evaluate each request for an ACO for an affected EGU that is required to run in violation of a State plan requirement for reliability purposes on a case-by-case basis. However, as a general matter, the EPA anticipates that to qualify for an ACO, the owner/operator would need to demonstrate, as a minimum, that the following conditions have been satisfied:<sup>675</sup>

- The owner/operator of the affected EGU requesting an ACO has requested, in writing and in a timely manner, an enforceable compliance schedule in an ACO.
- The owner/operator of the affected EGU requesting an ACO has provided the EPA written analysis and documentation of reliability risk if the unit were not in operation, which demonstrates that operation of the unit in noncompliance is critical to maintaining electric reliability and that failure to operate the unit would result in violation of the established reliability criteria for the relevant control area/balancing authority, or cause reserves to fall below the required system reserve margin.
- The owner/operator of the affected EGU requesting an ACO has provided the EPA with written concurrence with the reliability analysis from the relevant electric planning authority for the area in which the affected EGU is located.
- The owner/operator of the affected EGU requesting an ACO has demonstrated that the need to continue operating for reliability purposes is due to factors beyond the control of the owner/operator and that the owner/operator of the affected EGU has not contributed to the purported need for an ACO.
- The owner/operator of the affected EGU requesting an ACO demonstrates that it has met all applicable increments of progress and milestones in the State plan.
- It can be demonstrated that there is insufficient time to address the reliability risk and potential noncompliance through a State plan revision.

If deemed appropriate to do so, the EPA would issue an ACO that includes

<sup>675</sup> This is a nonexclusive list of conditions. The EPA may choose to consider additional factors when deciding whether to enter an ACO in any given situation.

a compliance schedule and milestones to achieve compliance as expeditiously as practicable. The ACO would also include any operational limits, including limits on utilization reflecting the extent to which the unit is needed for grid reliability, and/or work practices necessary to minimize or mitigate any emissions to the maximum extent practicable during any operation of the affected EGU before it has achieved full compliance. The EPA reiterates that it would not be appropriate to request an ACO to address reliability risk and anticipated noncompliance in circumstances in which a State plan revision is possible.

The EPA requests comment on whether to promulgate requirements in the final emission guidelines pertaining to the demonstrations, analysis, and information the owner or operator of an affected EGU would have to submit to the EPA in order to be considered for an ACO.

## 2. Timing of State Plan Submissions

The EPA's proposed subpart Ba revisions would require states to submit State plans within 15 months after publication of the final emission guidelines.<sup>676</sup> For the purpose of these particular emission guidelines, the EPA is proposing to supersede that timeline and is proposing a State plan submission deadline that is 24 months from the date of publication of the final emission guidelines. Crucially, these proposed emission guidelines apply to a relatively large and complex source category—existing fossil fuel-fired steam generating units and existing fossil fuel-fired combustion turbines. Making the decisions necessary for State plan development will require significant analysis, consultation, and coordination between states, utilities, ISOs or RTOs, and the owners or operators of individual affected EGUs. The power sector is subject to many layers of regulatory and other requirements under many authorities, and the decisions states make under these emission guidelines will necessarily have to accommodate many overlapping considerations and processes. States' plan development may be additionally complicated by the fact that, unlike some other source sectors to which the general CAA section 111 implementing regulations apply, decision-making regarding control strategies and operations for affected EGUs may not be solely within the purview of the owners or operators of those sources; at the very

least, affected EGUs often must obtain permission before making significant or permanent changes. The EPA does not believe it is reasonable to expect states and affected EGUs to undertake the coordination and planning necessary to ensure that their plans for implementing these emission guidelines are consistent with the broader needs and trajectory of the power sector in the space of 15 months.

Additionally, prior to an owner or operator providing a suggestion for a subcategory and standard of performance for an affected EGU to a State, that owner or operator will likely need to analyze options for complying with the applicable BSER for the subcategory. The EPA anticipates that some owners or operators of affected coal-fired steam generating units and affected combustion turbines will do feasibility and FEED studies for CCS prior to committing to it as a control strategy in a State plan. As discussed in section XII.B of this preamble and in the *GHG Mitigation Measures for Steam Generating Units* TSD, FEED studies take approximately 12 months to complete,<sup>677</sup> after which additional time is necessary to allow the conclusions from that study to be integrated into a State's planning process for certain affected EGUs. For other coal-fired steam generating units, there may also be planning, design, and permitting exercises that will be necessary for utilities to undertake prior to committing to a subcategory based on natural gas co-firing. While any boiler modifications required for affected EGUs that intend to co-fire natural gas are relatively straightforward, the owners or operators of EGUs in the medium-term subcategory may also be required to construct new pipelines to enable co-firing of 40 percent natural gas. Pipeline projects also require an initial planning and design process to determine feasibility and, in some cases, could involve FERC approval. Similar considerations apply for affected combustion turbine EGUs in the hydrogen co-fired subcategory with regard to any turbine upgrades that may be necessary to co-fire higher percentages of hydrogen and/or to the construction of any pipeline laterals that are necessary to supply the EGU with low-GHG hydrogen. Based on the approximately 12-month period that states and the owners or operators of affected EGUs will likely take to assess control strategies for these units, the EPA does not believe it is reasonable to require State plans to be submitted 15

months after promulgation of these emission guidelines.

In the proposed subpart Ba timelines for State plan submission, the EPA justified the generally applicable timelines in the context of public health and welfare impacts by proposing timelines that are as quick as is reasonably feasible for a generic set of emission guidelines under CAA section 111(d). The EPA is proposing 24 months for State plan timelines for these emission guidelines because 24 months is the quickest time that the EPA believes to be reasonably feasible for a State to submit a State plan based on the work and evaluation needed to establish which compliance strategy (such as CCS or co-firing) will be appropriate at a given EGU. Additionally, the EPA does not believe providing a longer timeline for the submission of State plans in this particular instance would ultimately impact how quickly the affected EGUs can comply with their standards of performance. As explained in section XII.B of this preamble and in the *GHG Mitigation Measures for Steam Generating Units* TSD, the EPA anticipates that CCS projects will take roughly 5 years to complete, assuming some steps are undertaken concurrently. If the EPA were to promulgate these emission guidelines in June 2024 and require State plan submissions in September 2025, the EPA anticipates that the soonest compliance could commence is in the third quarter of 2029. However, in this case, it is likely that at least some owners/operators of affected EGUs would have to commit to subcategories or control technologies before completing feasibility and FEED studies, which could result in the need for plan revisions and delayed emission reductions. In contrast, providing 24 months for State plan submission would mean that although plans would be due June 2026, owners or operators of affected EGUs would have had time to complete their feasibility and FEED studies and some initial planning steps before then. The EPA anticipates that owners or operators would need approximately another 3.5 years to reach full compliance, meaning that emission reductions would commence in the first quarter of 2030. The EPA does not believe that a difference of three months will adversely impact public health or welfare, especially when it is considered that providing more time for State plan development in this instance is more likely to ultimately result in certainty and timely emission reductions. The EPA solicits comment on the 24-month State planning period. The EPA specifically requests comments

<sup>676</sup> 87 FR 79182 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.23a(a)).

<sup>677</sup> *GHG Mitigation Measures for Steam Generating Units* TSD, chapter 4.7.1.

from owners and operators of affected EGUs regarding the steps, and amount of time needed for each step, that they would have to undertake to determine the applicable subcategories and to plan and implement the associated control strategies for each of their affected EGUs. Additionally, the EPA requests comment on the 24-month planning period from states, including on any unique characteristics of the fossil fuel-fired EGU source category that they believe merit planning timeframes longer than 15 months. Through outreach, many states have expressed a need for longer planning periods and the EPA solicits comment on whether this 24-month planning period accommodates that need. The EPA also requests comment from potentially impacted communities and other pertinent stakeholders on any considerations related to providing a longer State plan submission timeframe under these emission guidelines.

The EPA is additionally requesting comment on a potential bifurcated approach to State plan submissions for affected steam generating units and affected combustion turbine EGUs. In contrast to the proposed compliance deadline for steam generating units, the EPA is proposing compliance deadlines for combustion turbine EGUs in the CCS subcategory and combustion turbine EGUs in the hydrogen co-fired subcategory of January 1, 2035, and January 1, 2032 (with a second phase commencing on January 1, 2038), respectively. Despite the longer period between the anticipated promulgation of these emission guidelines and the proposed compliance deadlines for affected combustion turbine EGUs, the EPA is proposing that State plan submissions containing standards of performance and other applicable requirements for these units would be due 24 months after promulgation. Based on many of the same considerations regarding power sector planning and coordination discussed above, the EPA believes that states; owners and operators of affected EGUs; RTOs, ISOs, or other balancing authorities; and the public may benefit from considering the control strategies for all affected EGUs under these emission guidelines on the same timeline. Additionally, the EPA is cognizant of the need to achieve emission reductions and thus the public health and welfare benefits as soon as reasonably practicable.

However, the EPA also acknowledges that the compliance timeframes for combustion turbine EGUs are likely to be longer than those for steam generating units under these emission

guidelines due to, *inter alia*, the need to phase installation of CCS across the power sector and the continued ramp-up in production and transmission capacity for low-GHG hydrogen. The EPA is therefore requesting comment on an approach in which states would submit two different plans on different timelines: a State plan addressing affected steam-generating units due 24 months after promulgation of these emission guidelines and a second State plan addressing affected combustion turbine EGUs due 36 months after promulgation of these emission guidelines. The EPA solicits comment on this staggered approach and on whether 36 months, or a longer or shorter period, could be an appropriate State plan submission deadline for combustion turbine EGUs, and why. The EPA requests that commenters explain if and how a longer State plan submission timeline for affected combustion turbine EGUs would be consistent with achieving the emission reductions under these emission guidelines as quickly as reasonably practicable, as well as on the potential interactions between the State plan submission time frame and the proposed compliance deadlines for combustion turbine EGUs. The EPA also solicits comment from potentially impacted communities and other pertinent stakeholders on any considerations related to providing a longer State plan submission timeframe for combustion turbine EGUs under these emission guidelines.

### 3. State Plan Revisions

The EPA expects that the State plan submission deadline proposed under these emission guidelines would give states, utilities and independent power producers, and stakeholders sufficient time to determine in which subcategory each of the affected EGUs falls and to formulate and submit a State plan accordingly. However, the EPA also acknowledges that, despite states' best efforts to accurately reflect the plans of owners or operators with regard to affected EGUs at the time of State plan submission, such plans may subsequently change. In general, states have the authority and discretion to submit revised State plans to the EPA for approval.<sup>678</sup> State plan revisions are generally subject to the same requirements as initial State plan submissions under these emission guidelines and the subpart Ba implementation regulations, including meaningful engagement, and the EPA reviews State plan revisions against the

<sup>678</sup> 40 CFR 60.23a(a)(2), 60.28a.

applicable requirements of these emission guidelines in the same manner in which it reviews initial State plan submissions pursuant to 40 CFR 60.27a.

Approved State plan requirements remain federally enforceable unless and until the EPA approves a plan revision that supersedes such requirements. States and affected EGUs should plan accordingly to avoid noncompliance.

The EPA is proposing a State plan submission date that is 24 months after the publication of final emission guidelines and is proposing that the first compliance date for a portion of affected EGUs would be on January 1, 2030. A State may choose to submit a plan revision prior to compliance with its existing State plan requirements; however, the EPA reiterates that any already approved federally enforceable requirements, including milestones, increments of progress, and standards of performance, will remain in place unless and until the EPA approves the plan revision. The EPA requests comment on whether it would be helpful to states to impose a cut-off date for the submission of plan revisions ahead of the January 1, 2030, compliance date for coal-fired steam generating affected EGUs or ahead of the separate compliance dates for achieving the CCS-based or hydrogen co-firing-based standards for existing combustion turbines. Such a cut-off date, *e.g.*, January 1, 2028, would in effect establish a temporary moratorium on plan submissions in order to provide a sufficient window for the EPA to act on them and effectuate any changes to existing State plan requirements ahead of the final compliance date. State plan revisions would again be permitted after the final compliance date. As an alternative to a cut-off date for State plan revisions ahead of the compliance date, the EPA requests comment on the dual-path standards of performance approach discussed in section XII.F.4 of this preamble.

Under the proposed emission guidelines for existing coal-fired steam generating units, states would place their affected coal-fired steam generating units into one of four subcategories based on the time horizons over which those EGUs elect to operate. These subcategories are static—affected EGUs would not be able move between subcategories absent a plan revision.<sup>679</sup> However, the EPA

<sup>679</sup> If the EPA finalizes an option for States to include dual paths for an affected coal-fired EGU or EGUs in their state plans, those affected EGUs would be able to choose between two subcategories prior to the final compliance date without the state's needing to revise its plan.

acknowledges that there may be instances in which a change in subcategory will be necessary. For affected coal-fired steam generating EGUs that are switching into the imminent-term, near-term, or medium-term subcategories, the EPA proposes to require that the State include in its State plan revision documentation of the affected EGU's submission to the relevant RTO or balancing authority of the new date it intends to permanently cease operations, any responses from and studies conducted by the RTO or balancing authority addressing reliability and any other considerations related to ceasing operations, any filings with the SEC or notices to investors in which the plans for the EGU are mentioned, any integrated resource plan, and any other relevant information in support of the new date. This documentation must be published on the Carbon Pollution Standards for EGUs website. These proposed requirements are modeled on the proposed milestones for sources electing to commit to permanently cease operations and are intended to help states, stakeholders, and the EPA ensure that the affected EGU's change in circumstances is sufficiently certain to warrant a State plan revision. Because of the long lead times for planning and implementation of control systems for affected EGUs, revising a State plan after the submission deadline has the potential to significantly disrupt states' and affected EGUs' compliance strategies. The EPA therefore believes it is reasonable to require affected EGUs and states to provide evidence that a source's circumstances have in fact changed, in order for the EPA to approve a plan revision. Affected EGUs switching into the imminent-term, near-term, or medium-term subcategories would also be required to comply with the proposed enforceable milestones applicable to those subcategories.

Some changes between subcategories of affected coal-fired steam generating EGUs, including from the long-term into the medium-term subcategory and from the imminent-term or near-term into the medium-term or long-term subcategory, would entail new standards of performance reflecting a different add-on control strategy than initially anticipated. In order to avoid undermining the stringency of these proposed emission guidelines, the EPA expects affected EGUs changing subcategories before the January 1, 2030, compliance deadline to make every reasonable effort to meet that compliance deadline. However, the EPA acknowledges that, in some

circumstances, it may not be possible to complete the necessary planning and construction within a shortened timeframe. Additionally, unforeseen circumstances could require some affected EGUs to change subcategories after the final compliance deadline has passed (e.g., to ensure reliability).

In these circumstances, the EPA is proposing that states may use the RULOF mechanism described in section XII.D.2 of this preamble to adjust the compliance deadlines for affected EGUs that cannot comply with their applicable standards of performance by the January 1, 2030, deadline. The EPA expects that states may be able to demonstrate that the change in subcategory constitutes an "other circumstance[] specific to the facility . . . that [is] fundamentally different from the information considered in the determination of the best system of emission reduction in the emission guidelines."<sup>680</sup> In order to invoke RULOF to change a compliance deadline for an affected EGU that has switched subcategories, the EPA proposes that the State must first demonstrate that the affected EGU cannot meet the applicable presumptive standard of performance by the compliance deadline in these emission guidelines. As part of this demonstration the State would be required to provide evidence supporting the affected EGU's need to switch subcategories. The State would also be required to demonstrate that the need to invoke RULOF and to provide a different compliance deadline or less stringent standard of performance was not caused by self-created impossibility.

Like subcategorization for affected coal-fired steam-generating units, states would place their affected combustion turbine EGUs into one of the two subcategories in their State plans, along with the corresponding standard of performance. These subcategory designations are static—affected EGUs would not be able to move between subcategories absent a plan revision. The EPA expects that situations necessitating a change in subcategory for combustion turbine EGUs will be far less likely than for coal-fired steam-generating units. However, should the need arise for an affected combustion turbine EGU to change subcategories in a State plan, the same considerations discussed above for coal-fired steam generating units would apply. If a combustion turbine EGU changes

subcategories in a manner that entails a new standard of performance that is based on a different control technology than initially anticipated, the EPA expects the owner or operator of that EGU to make every reasonable effort to meet the original compliance deadline for the newly applicable subcategory. For situations in which this is impossible, the EPA is proposing that states could use the RULOF mechanism as described above to provide a revised compliance deadline. As part of its RULOF demonstration, a State would be required to provide evidence supporting the affected combustion turbine's need to switch subcategories, as well as a demonstration that the need to invoke RULOF and to provide a different compliance deadline was not caused by the owner or operator's self-created impossibility.

Documentation related to these demonstrations must also be posted to the Carbon Pollution Standards for EGUs website. For example, it would not be reasonable for a State that has been notified that an RTO requires an affected EGU to switch subcategories to wait to revise its SIP until the remaining useful life of that EGU is so short as to preclude otherwise reasonable systems of emission reduction. To this end, the EPA is proposing to consider when a State knew or should have known that an affected EGU would need to switch subcategories when evaluating the approvability of State plans that include RULOF demonstrations. The EPA is additionally proposing to consider whether an affected EGU has been complying with its applicable milestones and increments of progress when evaluating RULOF demonstrations. The EPA encourages states to consult with their EPA Regional Offices as early as possible if they believe it may become necessary for an affected EGU to switch subcategories. The EPA requests comment on whether to set a deadline for states to provide plan revisions within a certain timeframe of knowing that an affected EGU needs to switch subcategories and on what timeframe would be appropriate.

The EPA is proposing that states invoking RULOF because an affected EGU cannot comply with its newly applicable presumptive standard of performance by the final compliance deadline first evaluate whether the affected EGU is able to comply with that standard by a different, later-in-time deadline. If a State can demonstrate that an affected EGU cannot reasonably comply with the applicable presumptive standard of performance under any reasonable compliance deadline, it may

<sup>680</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions to RULOF provisions at 40 CFR 60.24a(e)(3)).



then evaluate different systems of emission reduction according to the proposed RULOF mechanism described in section XII.D.2 of this preamble.

#### 4. Dual-Path Standards of Performance for Affected EGUs

Under the structure of these emission guidelines as proposed, states would assign affected coal-fired steam generating units to subcategories in their State plans and an affected EGU would not be able to change its applicable subcategory without a State plan revision. This is because, due to the nature of the BSERs for coal-fired steam generating units, an affected EGU that switches between subcategories may not be able to meet compliance obligations for a new and different subcategory without considerable lag time and thus the switch would result in noncompliance and a loss of emission reductions. Similarly, states would be required to assign their affected combustion turbine EGUs to either the CCS or hydrogen co-fired subcategory in their State plans, at which point a unit could not switch between subcategories without a plan revision. Therefore, as a general matter, states must assign each affected EGU to a subcategory and have in place all the legal instruments necessary to implement the requirements for that subcategory by the time of State plan submission.

However, the EPA acknowledges that there may be circumstances in which the owner or operator of a coal-fired steam generating unit has not yet finalized its future operating plans and wishes to retain the option to choose between two different subcategories ahead of the proposed January 1, 2030, compliance date. Similarly, the owner or operator of a combustion turbine EGU may wish to retain the ability to choose between the CCS and hydrogen co-fired subcategories, particularly because the relatively long period between State plan submission and compliance means that a unit's circumstances could change materially in that time. The EPA is therefore soliciting comment on the following dual-path approach that may result in an additional flexibility for owners or operators of affected coal-fired steam generating units and affected combustion turbine EGUs that want additional time to commit to a particular subcategory without the need for a State plan revision.

The EPA is soliciting comment on an approach that allows coal-fired steam generating units and combustion turbine EGUs to have two different standards of performance submitted to the EPA in a State plan based on potential inclusion in two different subcategories. A State

plan would be required to have all the associated components for each subcategory. For example, for an affected coal-fired steam generating unit that wants the option to be part of either the long-term or imminent-term subcategory, the State plan would include an enforceable standard of performance based on implementation of CCS and associated requirements, including increments of progress; as well as an enforceable requirement to permanently cease operations before January 1, 2033, and a standard of performance based on routine operation and maintenance. The affected EGU would be required to meet all compliance obligations for both subcategories, including increments of progress and/or milestones for commitments to cease operations, leading up to the compliance date of January 1, 2030. The State and the owner or operator of the affected EGU would be required to choose a subcategory for the affected EGU ahead of that date. Specifically, the EPA is proposing that the State must notify the EPA of its final applicable subcategory and standard of performance at least 6 months prior to the compliance date. For affected coal-fired steam generating units, the State would be required to notify the EPA of the applicable standard by July 1, 2029. For affected combustion turbine EGUs, the State would be required to notify the EPA of the applicable standard by the earliest compliance date, or July 1, 2031. If the State has not notified the EPA by the required date (July 1, 2029, or July 1, 2031) of the final applicable subcategory for the affected EGU, the EPA is proposing that a coal-fired steam generating unit would automatically be subject to the requirements of the subcategory that corresponds to the longer remaining life of the EGU, while a combustion turbine EGU would automatically be subject to the requirements of the CCS subcategory. Additionally, if the affected EGU misses an enforceable increment of progress, milestone (as described in section XII.D.3 of this preamble), or any other requirement for one of the two subcategories, the EGU will automatically be subject to the requirements of the other subcategory. If the EGU misses submissions for increments of progress and/or milestones for both subcategories, the EGU will automatically be subject to the requirements of the subcategory that corresponds to the longer remaining life of the EGU (for coal-fired steam generating units) or the CCS subcategory (for combustion turbine EGUs) and will

additionally be found to be out of compliance for the increment of progress or milestone that it has missed.

The EPA is soliciting comment on this approach to provide flexibility to states and affected coal-fired steam generating units and affected combustion turbine EGUs. In some instances, owners or operators of affected EGUs may wish to have additional time to evaluate future operating plans; this proposed dual-path approach should provide owners or operators additional time to commit to a subcategory. However, with this additional time comes additional burden on owners and operators to demonstrate compliance with each of the requirements associated with two different subcategories that would be included in a State plan. As an example, a coal-fired steam generating unit intends to cease operations between 2038 and 2041. The State plan is submitted and contains two different enforceable dates to permanently cease operations, *e.g.*, December 31, 2038, with a standard of performance based on natural gas co-firing and December 31, 2041, with a standard of performance based on CCS, as well as an enforceable commitment by the State to choose one path or the other by July 1, 2029. The affected EGU would then be required to comply with the increments of progress for both the long-term (CCS) and medium-term (co-firing) subcategories, until the point at which the State decides which of the two paths in its plan it will require for the unit.

The EPA solicits comment on whether this proposed dual-path flexibility would have utility and on whether it could be implemented in a manner that ensures that states and affected coal-fired steam generating units and affected combustion turbine EGUs would be able to comply with applicable requirements in a timely manner. Additionally, the EPA solicits comment on whether notification deadlines of July 1, 2029, for coal-fired steam generating units, and July 1, 2031, for combustion turbine EGUs are the appropriate dates for a final decision between two potential standards of performance and why.

#### 5. EPA Action on State Plans

Pursuant to proposed subpart Ba, the EPA would use a 60-day timeline for the Administrator's determination of completeness of a State plan submission<sup>681</sup> and a 12-month timeline

<sup>681</sup> The timeframes and requirements for state plan submissions described in this section also apply to state plan revisions. See generally 40 CFR 60.27a.

for action on State plans.<sup>682</sup> The EPA is not proposing to supersede these timelines; therefore, review of and action on State plan submissions will be governed by the requirements of revised subpart Ba. First, the EPA would review the components of the State plan to determine whether the plan meets the completeness criteria of 40 CFR 60.27a(g). The EPA must determine whether a State plan submission has met the completeness criteria within 60 days of its receipt of that submission. If the EPA has failed to make a completeness determination for a State plan submission within 60 days of receipt, the submission shall be deemed, by operation of law, complete as of that date.

Proposed subpart Ba would require the EPA to take action on a State plan submission within 12 months of that submission's being deemed complete. The EPA will review the components of State plan submissions against the applicable requirements of subpart Ba and these emission guidelines, consistent with the underlying requirement that State plans must be "satisfactory" per CAA section 111(d). If the EPA finalizes the revisions to subpart Ba as proposed, the Administrator would have the option to fully approve, fully disapprove, partially approve, partially disapprove, and conditionally approve a State plan submission.<sup>683</sup> Any components of a State plan submission that the EPA approves become federally enforceable.

The EPA requests comment on the use of the timeframes provided in subpart Ba, as the EPA has proposed to revise it, for EPA actions on State plan submissions and for the promulgation of Federal plans for these particular emission guidelines.

#### 6. Federal Plan Applicability and Promulgation Timing

The provisions of subpart Ba, including any revisions the EPA finalizes pursuant to its December 2022 proposal, will apply to the EPA's promulgation of any Federal plans under these emission guidelines. The EPA's obligation to promulgate a Federal plan is triggered in three situations: where a State does not submit a plan by the plan submission deadline; where the EPA determines that a State plan submission does not meet the completeness criteria and the time period for State plan submission

has elapsed; and where the EPA fully or partially disapproves a State's plan.<sup>684</sup> Where a State has failed to submit a plan by the submission deadline, the proposed revisions to subpart Ba would give the EPA 12 months from the State plan submission due date to promulgate a Federal plan; otherwise, the 12-month period starts from the date the State plan submission is deemed incomplete, whether in whole or in part, or from the date of the EPA's disapproval. The EPA may approve a State plan submission that corrects the relevant deficiency within the 12-month period, before it promulgates a Federal plan, in which case its obligation to promulgate a Federal plan is relieved.<sup>685</sup> As provided by 40 CFR 60.27a(e), a Federal plan will prescribe standards of performance for affected EGUs of the same stringency as required by these emission guidelines and will require compliance with such standards as expeditiously as practicable but no later than the final compliance date under these guidelines. However, upon application by the owner or operator of an affected EGU, the EPA in its discretion may provide for a less stringent standard of performance or longer compliance schedule than provided by these emission guidelines, in which case the EPA would follow the same process and criteria in the regulations that apply to states' provision of RULOF standards.<sup>686</sup> Under the proposed revisions to subpart Ba, the EPA would also be required to conduct meaningful engagement with pertinent stakeholders prior to promulgating a Federal plan.<sup>687</sup>

As described in section XII.F.2 of this preamble, the EPA is proposing to allow states 24 months for a State plan submission after the promulgation of the final emission guidelines. Therefore, the EPA would be obligated to promulgate a Federal plan within 36 months of the final emission guidelines for all states that fail to submit plans. Note that this will be the earliest obligation for the EPA to promulgate Federal plans for states and that different triggers (e.g., a disapproved State plan) will result in later obligations to promulgate Federal plans contingent on when the obligation is triggered.

Under the Tribal Authority Rule (TAR) adopted by the EPA, Tribes may

seek authority to implement a plan under CAA section 111(d) in a manner similar to that of a State. See 40 CFR part 49, subpart A. Tribes may, but are not required to, seek approval for treatment in a manner similar to that of a State for purposes of developing a Tribal Implementation Plan (TIP) implementing the emission guidelines. If a Tribe obtains approval and submits a TIP, the EPA will generally use similar criteria and follow similar procedures as those described for State plans when evaluating the TIP submission and will approve the TIP if appropriate. The EPA is committed to working with eligible Tribes to help them seek authorization and develop plans if they choose. Tribes that choose to develop plans will generally have the same flexibilities available to states in this process. If a Tribe does not seek and obtain the authority from the EPA to establish a TIP, the EPA has the authority to establish a Federal CAA section 111(d) plan for areas of Indian country where designated facilities are located. A Federal plan would apply to all designated facilities located in the areas of Indian country covered by the Federal plan unless and until the EPA approves an applicable TIP applicable to those facilities.

### XIII. Implications for Other EPA Programs

#### A. Implications for New Source Review (NSR) Program

CAA section 110(a)(2)(C) requires that a SIP include a New Source Review (NSR) program that provides for the "regulation of the modification and construction of any stationary source . . . as necessary to assure that [the NAAQS] are achieved." Within the NSR program, the "major NSR" preconstruction permitting program applies to new construction and modifications of existing sources that emit "regulated NSR pollutants" at or above certain established thresholds. New sources and modifications that emit regulated NSR pollutants under the established thresholds may be subject to "minor NSR" program requirements or may be excluded from NSR requirements altogether. The NSR program for a State or local permitting authority with an approved SIP is implemented through 40 CFR 51.160 to 51.166, while the NSR program applying in areas for which the EPA or a delegated State, local or Tribal agency is the permitting authority is implemented through 40 CFR part 49 and 40 CFR 52.21.

NSR applicability is pollutant-specific and, for the major NSR program, the

<sup>682</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a).

<sup>683</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a(b)).

<sup>684</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a(c)).

<sup>685</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a(d)).

<sup>686</sup> 40 CFR 60.27a(e)(2).

<sup>687</sup> 87 FR 79176 (December 23, 2022), Docket ID No. EPA-HQ-OAR-2021-0527-0002 (proposed revisions at 40 CFR 60.27a(f)).

permitting requirements that apply to a source depend on the air quality designation at the location of the source for each of its emitted pollutants at the time the permit is issued. Major NSR permits for sources located in an area that is designated as attainment or unclassifiable for the NAAQS for its pollutants are referred to as Prevention of Significant Deterioration (PSD) permits. In addition, PSD permits can include requirements for specific pollutants for which there are no NAAQS.<sup>688</sup> Sources subject to PSD must, among other requirements, comply with emission limitations that reflect the Best Available Control Technology (BACT) for “each pollutant subject to regulation” as specified by CAA sections 165(a)(4) and 169(3). Major NSR permits for sources located in nonattainment areas and that emit at or above the specified major NSR threshold for the pollutant for which the area is designated as nonattainment are referred to as Nonattainment NSR (NNSR) permits. Sources subject to NNSR must, among other requirements, meet the Lowest Achievable Emissions Rate (LAER) pursuant to CAA sections 171(3) and 173(a)(2) for any pollutant subject to NNSR. For sources subject to minor NSR, the CAA and EPA rules do not set forth prescriptive control technology requirements for minor NSR programs so these permits can be less stringent than major NSR permits. Due to the pollutant-specific applicability of the NSR program, it is conceivable that a source seeking to newly construct or modify may have to obtain multiple types of NSR permits (*i.e.*, NNSR, PSD, or minor NSR) depending on the air quality designation at the location of the source and the types and amounts of pollutants it emits.

A new stationary source is subject to major NSR requirements if its potential to emit (PTE) a regulated NSR pollutant exceeds statutory emission thresholds, upon which the NSR regulations define it as a “major stationary source.”<sup>689</sup> For PSD permitting, once a new stationary

source is determined to be subject to major NSR for one regulated NSR pollutant (with the exception of GHG),<sup>690</sup> the source can be subject to major NSR requirements for any other regulated NSR pollutant if the PTE of that pollutant is at least the “significant” emissions rate (“SER”), as defined in 40 CFR 52.21(b)(23). In the case of GHG,<sup>691</sup> the EPA has not promulgated a GHG SER but applies a BACT applicability threshold of 75,000 TPY CO<sub>2</sub>e.<sup>692</sup>

For an existing source, it can be subject to major NSR requirements if it is a major stationary source and its emissions increase resulting from a modification (*i.e.*, physical change or change in the method of operation) are equal to or greater than the SER for a regulated NSR pollutant, upon which the NSR regulations define it as a “major modification.”<sup>693</sup> As with new sources, the one exception to this applicability approach is GHG, which currently applies a BACT applicability threshold in lieu of a SER and can only be subject to major NSR if another pollutant is also subject to major NSR for the modification. Generally, an existing major stationary source triggering major NSR requirements for a regulated NSR pollutant would have both a significant emissions increase from the modification and a significant net emissions increase at the stationary source, and the calculation of the significant emissions increase differs depending on whether the modification is to an existing emissions unit, or the addition of a new emissions unit, or if it involves multiple types of emission units.<sup>694</sup> An existing major stationary

source would trigger PSD permitting requirements for GHGs if it undertakes a modification and: (1) The modification is otherwise subject to PSD for a pollutant other than GHG; and (2) the modification results in a GHG emissions increase and a GHG net emissions increase that is equal to or greater than 75,000 TPY CO<sub>2</sub>e and greater than zero on a mass basis.

Since GHG is not a criteria pollutant, it is regulated under the CAA’s PSD program, but not under the NNSR or minor NSR programs. For new sources and modifications that are subject to PSD, the permitting authority must establish emission limitations based on BACT for each pollutant that is subject to PSD at the major stationary source or at each emissions unit involved in the major modification. BACT is assessed on a case-by-case basis, and the permitting authority, in its analysis of BACT for each pollutant, evaluates the emission reductions that each available emissions-reducing technology or technique would achieve, as well as the energy, environmental, economic, and other costs associated with each technology or technique. The CAA also specifies that BACT cannot be less stringent than any applicable standard of performance under the NSPS.<sup>695</sup> Permitting authorities may determine BACT by applying the EPA’s five-step “top down” approach.<sup>696</sup> The ultimate determination of BACT is made by the permitting authority after a public notice and comment period of at least 30-days on the draft permit and supporting information.<sup>697</sup>

#### 1. NSR Implications of a CAA Section 111(b) Standard

As noted above, BACT cannot be set at a level that is less stringent than the standard of performance established by an applicable NSPS, and the EPA refers to this minimum control level as the “BACT floor.” While a proposed NSPS does not establish the BACT floor for affected facilities seeking a PSD permit, once an NSPS is promulgated, it then serves as the BACT floor for any new major stationary source or major modification that meets the

<sup>688</sup> For the PSD program, “regulated NSR pollutant” includes any pollutant for which a NAAQS has been promulgated (“criteria pollutants”) and any other air pollutant that meets the requirements of 40 CFR 52.21(b)(50). Some of these non-criteria pollutants include fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds.

<sup>689</sup> For PSD, the statute uses the term “major emitting facility” and defines it as a stationary source that emits, or has a PTE, at least 100 tons per year (TPY) if the source is in one of 28 listed source categories, or at least 250 TPY if the source is not a listed source category. CAA section 169(1). For NNSR, the emissions threshold for a major stationary source is 100 TPY, and lower thresholds apply for certain pollutants based on the severity of the nonattainment classification.

<sup>690</sup> As a result of the Supreme Court’s decision in *UARG v. EPA*, the D.C. Circuit issued an amended judgment in *Coalition for Responsible Regulation, Inc. v. EPA*, Nos. 09–1322, 10–073, 10–1092 and 10–1167 (D.C. Cir. April 10, 2015), which, among other things, vacated the PSD and title V regulations under review in that case to the extent that they require a stationary source to obtain a PSD or title V permit solely because the construction of the source, or a modification at the source, emits or has the potential to emit GHGs at or above the applicable major NSR thresholds.

<sup>691</sup> Consistent with the 2009 Endangerment Findings, the PSD program treats GHG as a single air pollutant defined as the aggregate group of six gases: CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>. 40 CFR 52.21(b)(49)(i).

<sup>692</sup> See Janet G. McCabe and Cynthia Giles, Next Steps and Preliminary Views on the Application of Clean Air Act Permitting Programs to Greenhouse Gases Following the Supreme Court’s Decision in *Utility Air Regulatory Group v. Environmental Protection Agency* (July 24, 2014), <https://www.epa.gov/sites/default/files/2015-12/documents/20140724memo.pdf>.

<sup>693</sup> Per 40 CFR 52.21(b)(1)(i)(c), a minor source that undergoes a physical change that would itself be considered major, is subject to major source requirements.

<sup>694</sup> 40 CFR 52.21(a)(2)(iv); 40 CFR 52.21(b)(2)(i); 40 CFR 52.21(b)(3).

<sup>695</sup> 42 U.S.C. 7479(3) (“In no event shall application of ‘best available control technology’ result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to [CAA Section 111 or 112].”).

<sup>696</sup> U.S. EPA, NSR Workshop Manual (Draft October 1990), <https://www.epa.gov/sites/default/files/2015-07/documents/1990wman.pdf>; U.S. EPA, PSD and Title V Permitting Guidance for Greenhouse Gases (March 2011), <https://www.epa.gov/sites/default/files/2015-07/documents/ghgguid.pdf>.

<sup>697</sup> 40 CFR 124.10.

applicability of the NSPS and commences construction after the date of the proposed NSPS in the **Federal Register**.<sup>698</sup> In the context of combustion turbines that would be subject to this NSPS at 40 CFR part 60, subpart TTTT, for any new major stationary source or major modification that commences construction or reconstruction of a stationary combustion turbine EGU after the date of publication of this proposed NSPS, the PSD permit should reflect a BACT determination that is at least as stringent as the promulgated NSPS for each of the source's affected EGUs.

However, the fact that a minimum control requirement is established by an applicable NSPS does not mean that a permitting authority cannot select a more stringent control level for the PSD permit or consider technologies for BACT beyond those that were considered in developing the NSPS. As explained above, BACT is a case-by-case review that considers a number of factors, and the review should reflect advances in control technology, reductions in the costs or other impacts of using particular control strategies, or other relevant information that may have become available after development of an applicable NSPS.

## 2. NSR Implications of a CAA Section 111(d) Standard

With respect to the proposed action for emission guidelines, should it be promulgated, states will be called upon to develop a plan that establish standards of performance for each affected EGU that meets the requirements in the emission guidelines. In doing so, a State agency may develop a plan that results in an affected source undertaking a physical or operational change. Under the NSR program, undertaking a physical or operational change may require the source to obtain a preconstruction permit for the proposed change, with the type of NSR permit (*i.e.*, NNSR, PSD, or minor NSR) depending on the amount of the emissions increase resulting from the change and the air quality designation at the location of the source for its emitted pollutants. More specifically, any time an existing source adds equipment or otherwise makes physical or operational changes to its facility, regardless of whether it has done so to comply with a national or State level requirement, the source may be required to obtain a NSR permit prior to making the changes unless the

permitting authority determines that the action is exempt from permitting.<sup>699</sup>

Thus, there may be circumstances in which an affected source that is implementing a BSER requirement from a State plan is required to obtain a major NSR permit for one or more of its pollutants. One scenario in which this may occur is if an affected source experiences greater unit availability and reliability as a result of implementing its BSER requirement (*e.g.*, an efficiency based BSER) that, in turn, lowers the operating costs of its EGU. Since EGUs that operate at lower costs are generally preferred in the dispatch by the system operator over units with higher operational costs, the BSER implementation could result in improving the source's relative economics that would, in turn, increase its utilization of its EGU(s). With an increase in utilization resulting from the source implementing the BSER, the annual emissions from the EGU could increase, and if the emissions increase equals or exceeds the relevant SER for one or more of its pollutants, the source may be required to obtain a major NSR permit for the modification.

However, while it may be possible for an affected source to trigger major NSR requirements from actions it takes to implement a BSER requirement, we expect this situation to not occur often. As previously discussed in this preamble, states will have considerable flexibility in adopting varied compliance measures as they develop their plans to meet the standards of performance of the emission guidelines. One of these flexibilities is the ability for states to establish the standards of performance in their plans in such a way so that their affected sources, in complying with those standards, in fact would not have emission increases that trigger major NSR requirements. To achieve this, the State would need to conduct an analysis consistent with the NSR regulatory requirements that supports its determination that as long as affected sources comply with the standards of performance, their emissions would not increase in a way that trigger major NSR requirements. For example, a State could, as part of its State plan, develop enforceable conditions for a source expected to trigger major NSR that would effectively limit the unit's ability to increase its emissions in amounts that would trigger

major NSR (effectively establishing a synthetic minor limitation).<sup>700</sup>

## B. Implications for Title V Program

Title V is implemented through 40 CFR parts 70 and 71. Part 70 defines the minimum requirements for State, local and Tribal (state) agencies to develop, implement and enforce a title V operating permit program; these programs are developed by the State and the State submits a program to the EPA for a review of consistency with part 70. There are about 117 approved part 70 programs in effect, with about 14,000 part 70 permits currently in effect. (See Appendix A of 40 CFR part 70 for the approval status of each State program.) Part 71 is a Federal permit program run by the EPA, primarily where there is no part 70 program in effect (*e.g.*, in Indian country, the Federal Outer Continental Shelf, and for offshore Liquefied Natural Gas terminals).<sup>701</sup> There are about 100 part 71 permits currently in effect (most are in Indian country).

The title V regulations require each permit to include emission limitations and standards, including operational requirements and limitations that assure compliance with all applicable requirements. Requirements resulting from these rules that are imposed on EGUs or other potentially affected entities that have title V operating permits are applicable requirements under the title V regulations and would need to be incorporated into the source's title V permit in accordance with the schedule established in the title V regulations. For example, if the permit has a remaining life of three years or more, a permit reopening to incorporate the newly applicable requirement shall be completed no later than 18 months after promulgation of the applicable requirement. If the permit has a remaining life of less than three

<sup>700</sup> Certain stationary sources that emit or have the potential to emit a pollutant at a level that is equal to or greater than specified thresholds are subject to major source requirements. See, *e.g.*, CAA sections 165(a)(1), 169(1), 501(2), 502(a). A synthetic minor limitation is a legally and practically enforceable restriction that has the effect of limiting emissions below the relevant level and that a source voluntarily obtains to avoid major stationary source requirements, such as the PSD or title V permitting programs. See, *e.g.*, 40 CFR 52.21(b)(4), 51.166(b)(4), 70.2 (definition of "potential to emit").

<sup>701</sup> In some circumstances, the EPA may delegate authority for part 71 permitting to another permitting agency, such as a Tribal agency or a state. The EPA has entered into delegation agreements for certain part 71 permitting activities with at least one Tribal agency. There are currently no States that do not have an approved part 70 program; thus, there is no need for the EPA to delegate part 71 delegated authority to any state at this time.

<sup>698</sup> U.S. EPA, *PSD and Title V Permitting Guidance for Greenhouse Gases* (March 2011), p. 25.

<sup>699</sup> The EPA sought to exempt environmentally beneficially pollution control projects from NSR requirements in a 2002 rule that codified longstanding EPA policy, but this rule was struck down in court. *New York v. EPA*, 413 F.3d 3, 40–42 (D.C. Cir. 2005) (*New York I*).

years, the newly applicable requirement must be incorporated at permit renewal.

If a State needs to include provisions related to the State plan in a source's title V permit before submitting the plan to the EPA, these limits should be labeled as "state-only" or "not federally enforceable" until the EPA has approved the State plan. The EPA solicits comment on whether, and under what circumstances, states might use this mechanism.

**XIV. Impacts of Proposed Actions**

In accordance with E.O. 12866 and 13563, the guidelines of OMB Circular A-4 and the EPA's Guidelines for Preparing Economic Analyses, the EPA prepared an RIA for these proposed actions. This RIA presents the expected economic consequences of the EPA's proposed rules, including analysis of the benefits and costs associated with the projected emission reductions for three illustrative scenarios. The first scenario represents the proposed CAA 111(b) combustion turbine phase 1 and phase 2 standards and 111(d) steam generating turbine proposals in combination. The second and third scenarios represent different stringencies of the combined policies. All three illustrative scenarios are compared against a single baseline. For detailed descriptions of the three illustrative scenarios and the baseline, see section 1 of the RIA, which is titled

"Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule."

The three scenarios detailed in the RIA, including the proposal scenario, are illustrative in nature and do not represent the plans that states may ultimately pursue. As there are considerable flexibilities afforded to states in developing their State plans, the EPA does not have sufficient information to assess specific compliance measures on a unit-by-unit basis. Nonetheless, the EPA believes that such illustrative analysis can provide important insights.

In the RIA, the EPA evaluates the potential impacts of the three illustrative scenarios using the present value (PV) of costs, benefits, and net benefits, calculated for the years 2024 to 2042 from the perspective of 2024, using both a three percent and seven percent discount rate. In addition, the EPA presents the assessment of costs, benefits, and net benefits for specific snapshot years, consistent with the Agency's historic practice. These specific snapshot years are 2028, 2030, 2035, and 2040. In addition to the core

benefit-cost analysis, the RIA also includes analyses of anticipated economic and energy impacts, environmental justice impacts, and employment impacts.

The analysis presented in this preamble section summarizes key results of the illustrative policy scenario. For detailed benefit-cost results for the three illustrative scenarios and results of the variety of impact analysis just mentioned, please see the RIA, which is available in the docket for this action. The EPA also seeks comment on all aspects of the analysis, including modeling assumptions.

*A. Air Quality Impacts*

For the analysis of the proposed standards for new combustion turbines and for existing steam generating EGUs, which do not include the impact of the proposed standards for existing combustion turbines and the third phase of the proposed standards for new combustion turbines, total cumulative power sector CO<sub>2</sub> emissions between 2028 and 2042 are projected to be 617 million metric tons lower under the illustrative proposal scenario than under the baseline. Table 7 shows projected aggregate annual electricity sector emission changes for the illustrative proposal scenario, relative to the baseline.

**TABLE 7—PROJECTED ELECTRICITY SECTOR EMISSION IMPACTS FOR THE ILLUSTRATIVE PROPOSAL SCENARIO, RELATIVE TO THE BASELINE**

	CO <sub>2</sub> (million metric tons)	Annual NO <sub>x</sub> (thousand short tons)	Ozone Season NO <sub>x</sub> (thousand short tons)	Annual SO <sub>2</sub> (thousand short tons)	Direct PM <sub>2.5</sub> (thousand short tons)
2028 .....	-10	-7	-3	-12	-1
2030 .....	-89	-64	-22	-107	-6
2035 .....	-37	-21	-7	-41	-1
2040 .....	-24	-13	-4	-30	-1

**Note:** Ozone season is the May through September period in this analysis.

The emissions changes in these tables do not account for changes in HAP that are likely to occur as a result of this action.

For the analysis of the proposed standards for existing combustion turbines and for the third phase of the proposed standards for new natural gas-fired EGUs, total cumulative power sector CO<sub>2</sub> emissions between 2028 and 2042 are estimated to be between 215–409 million metric tons lower than under the illustrative proposal scenario.

**TABLE 8—ESTIMATED ELECTRICITY SECTOR EMISSION IMPACTS FROM EXISTING GAS STANDARD AND THIRD PHASE OF LOW-GHG HYDROGEN CO-FIRING STANDARD FOR NEW BASE LOAD COMBUSTION TURBINES**

	CO <sub>2</sub> (million metric tons)	
	Low	High
2028 .....	0	0
2030 .....	0	0
2035 .....	-20	-37
2040 .....	-20	-39

*B. Compliance Cost Impacts*

The power industry's compliance costs are represented in this analysis as the change in electric power generation costs between the baseline and illustrative scenarios, including the cost of monitoring, reporting, and recordkeeping. In simple terms, these costs are an estimate of the increased power industry expenditures required to comply with the proposed actions.

The compliance assumptions—and, therefore, the projected compliance costs—set forth in this analysis are illustrative in nature and do not represent the plans that states may

ultimately pursue. The illustrative proposal scenario is designed to reflect, to the extent possible, the scope and nature of the proposed guidelines. However, there is uncertainty with regards to the precise measures that states will adopt to meet the requirements because there are flexibilities afforded to the states in developing their State plans.

The impact of the IRA is to accelerate the ongoing shift towards lower emitting technology. In particular, tax credits for low-emitting technology results in growing generation share for renewable resources and the deployment of 11 GW of CCS retrofits on existing coal fired EGUs, and 10 GW of CCS retrofits on existing combined cycle EGUs by 2035. New combined cycle builds are 22 GW by 2030, and existing coal capacity continues to decline, falling to 69 GW by 2030 and 35 GW by 2040. As a result, the compliance cost of the proposed rules is lower than it would be absent the IRA.

We estimate the present value (PV) of the projected compliance costs for the analysis of the proposed standards for new combustion turbines and for existing steam-generating EGUs, which do not include the impact of the proposed standards for existing combustion turbines EGUs and the third phase of the proposed standards for new combustion turbines over the 2024 to

2042 period, as well as estimate the equivalent annual value (EAV) of the flow of the compliance costs over this period. The EAV represents a flow of constant annual values that, had they occurred annually, would yield a sum equivalent to the PV. All dollars are in 2019 dollars. Consistent with Executive Order 12866 guidance, we estimate the PV and EAV using 3 and 7 percent discount rates. The PV of the compliance costs, discounted at the 3-percent rate, is estimated to be about \$14 billion, with an EAV of about \$0.95 billion. At the 7-percent discount rate, the PV of the compliance costs is estimated to be about \$10 billion, with an EAV of about \$0.98 billion.

The EPA has developed a separate estimate of the projected compliance costs for the proposed standards for existing combustion turbines and third phase of the proposed standards for new natural gas-fired EGUs over the 2024 to 2042 period. The PV of these compliance costs, discounted at the 3-percent rate, is estimated to be between about \$5.7 to 10 billion, with an EAV of between about \$0.4 to 0.7 billion. At the 7 percent discount rate, the PV of these compliance costs is estimated to be between about \$3.5 to 6.2 billion, with an EAV of about \$0.34 to 0.6 billion.

Sections 3 and 8 of the RIA present detailed discussions of the compliance cost projections for the proposed

requirements, as well as projections of compliance costs for less and more stringent regulatory options. For a detailed description of these compliance cost projections, please see sections 3 and 8 of the RIA. The EPA solicits comment on its cost estimation generally.

*C. Economic and Energy Impacts*

These proposed actions have economic and energy market implications. The energy impact estimates presented here reflect the EPA’s illustrative analysis of the proposed rules. States are afforded flexibility to implement the proposed rules, and thus the impacts could be different to the extent states make different choices than those assumed in the illustrative analysis. Table 9 presents a variety of energy market impact estimates for 2028, 2030, 2035, and 2040 for the illustrative proposal scenario, relative to the baseline. These results pertain to the analysis of the proposed standards for new combustion turbines and for existing steam generation EGUs, and do not include the impact of the proposed standards for existing combustion turbines and the third phase of the proposed standards for new combustion turbines.

TABLE 9—SUMMARY OF CERTAIN ENERGY MARKET IMPACTS FOR THE ILLUSTRATIVE PROPOSAL SCENARIO, RELATIVE TO THE BASELINE  
[Percent change]

	2028 (%)	2030 (%)	2035 (%)	2040 (%)
Retail electricity prices .....	-1	2	0	0
Average price of coal delivered to power sector .....	-1	0	2	2
Coal production for power sector use .....	-2	-40	-23	-15
Price of natural gas delivered to power sector .....	0	9	-2	-3
Price of average Henry Hub (spot) .....	0	10	-2	-2
Natural gas use for electricity generation .....	0	8	-1	-2

These and other energy market impacts are discussed more extensively in section 3 of the RIA.

More broadly, changes in production in a directly regulated sector may have effects on other markets when output from that sector—for this rule electricity—is used as an input in the production of other goods. It may also affect upstream industries that supply goods and services to the sector, along with labor and capital markets, as these suppliers alter production processes in response to changes in factor prices. In addition, households may change their demand for particular goods and services due to changes in the price of

electricity and other final goods prices. Economy-wide models—and, more specifically, computable general equilibrium (CGE) models—are analytical tools that can be used to evaluate the broad impacts of a regulatory action. A CGE-based approach to cost estimation concurrently considers the effect of a regulation across all sectors in the economy.

In 2015, the EPA established a Science Advisory Board (SAB) panel to consider the technical merits and challenges of using economy-wide models to evaluate costs, benefits, and economic impacts in regulatory

analysis. In its final report, the SAB recommended that the EPA begin to integrate CGE modeling into applicable regulatory analysis to offer a more comprehensive assessment of the effects of air regulations.<sup>702</sup> In response to the SAB’s recommendations, the EPA developed a new CGE model called SAGE designed for use in regulatory analysis. A second SAB panel

<sup>702</sup> U.S. EPA. 2017. SAB Advice on the Use of Economy-Wide Models in Evaluating the Social Costs, Benefits, and Economic Impacts of Air Regulations. EPA-SAB-17-012.

performed a peer review of SAGE, and the review concluded in 2020.<sup>703</sup>

The EPA used SAGE to evaluate potential economy-wide impacts of these proposed rules, and the results are contained in an appendix of the RIA. As presented in the RIA, annualized social costs estimated in SAGE are approximately 35 percent larger than the partial equilibrium private compliance costs (less taxes and transfers) derived from IPM. This is consistent with general expectations based on the empirical literature.<sup>704</sup> However, the social cost estimate reflects the combined effect of the proposed rules' requirements and interactions with IRA subsidies for specific technologies that are expected to see increased use in response to the proposed rules. We are not able to identify their relative roles at this time. The EPA solicits comment on the SAGE analysis presented in the RIA appendix.

Environmental regulation may affect groups of workers differently, as changes in abatement and other compliance activities cause labor and other resources to shift. An employment impact analysis describes the characteristics of groups of workers potentially affected by a regulation, as well as labor market conditions in affected occupations, industries, and geographic areas. Employment impacts of these proposed actions are discussed more extensively in section 5 of the RIA.

#### D. Benefits

Pursuant to E.O. 12866, the RIA for these actions analyzes the benefits associated with the projected emission reductions under the proposals to inform the EPA and the public about these projected impacts.<sup>705</sup> These proposed rules are projected to reduce emissions of CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub> nationwide which we estimate will provide climate benefits and public health benefits. The potential climate, health, welfare, and water quality impacts of these emission reductions are discussed in detail in the RIA. In the RIA, the EPA presents the projected monetized climate benefits due to

reductions in CO<sub>2</sub> emissions and the monetized health benefits attributable to changes in SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub> emissions, based on the emissions estimates in illustrative scenarios described previously. We monetize benefits of the proposed standards and evaluate other costs in part to enable a comparison of costs and benefits pursuant to E.O. 12866, but we recognize there are substantial uncertainties and limitations in monetizing benefits, including benefits that have not been quantified or monetized.

We estimate the climate benefits from these proposed rules using estimates of the social cost of greenhouse gases (SC-GHG), specifically the SC-CO<sub>2</sub>. The SC-CO<sub>2</sub> is the monetary value of the net harm to society associated with a marginal increase in CO<sub>2</sub> emissions in a given year, or the benefit of avoiding that increase. In principle, SC-CO<sub>2</sub> includes the value of all climate change impacts (both negative and positive), including (but not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. The SC-CO<sub>2</sub>, therefore, reflects the societal value of reducing emissions of the gas in question by one metric ton and is the theoretically appropriate value to use in conducting benefit-cost analyses of policies that affect CO<sub>2</sub> emissions. In practice, data and modeling limitations naturally restrain the ability of SC-CO<sub>2</sub> estimates to include all the important physical, ecological, and economic impacts of climate change, such that the estimates are a partial accounting of climate change impacts and will therefore, tend to be underestimates of the marginal benefits of abatement. The EPA and other Federal agencies began regularly incorporating SC-GHG estimates in their benefit-cost analyses conducted under E.O. 12866 since 2008, following a Ninth Circuit Court of Appeals remand of a rule for failing to monetize the benefits of reducing CO<sub>2</sub> emissions in a rulemaking process.

We estimate the global social benefits of CO<sub>2</sub> emission reductions expected from the proposed rule using the SC-GHG estimates presented in the February 2021 TSD: *Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under E.O. 13990*. These SC-GHG estimates are interim values developed under E.O. 13990 for use in benefit-cost analyses until updated estimates of the impacts of climate change can be developed based on the best available climate science

and economics. We have evaluated the SC-GHG estimates in the TSD and have determined that these estimates are appropriate for use in estimating the global social benefits of CO<sub>2</sub> emission reductions expected from this proposed rule. After considering the TSD, and the issues and studies discussed therein, the EPA finds that these estimates, while likely an underestimate, are the best currently available SC-GHG estimates. These SC-GHG estimates were developed over many years using a transparent process, peer-reviewed methodologies, the best science available at the time of that process, and with input from the public. As discussed in section 4 of the RIA, these interim SC-CO<sub>2</sub> estimates have a number of limitations, including that the models used to produce them do not include all of the important physical, ecological, and economic impacts of climate change recognized in the climate-change literature and that several modeling input assumptions are outdated. As discussed in the February 2021 TSD, the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) finds that, taken together, the limitations suggest that these SC-CO<sub>2</sub> estimates likely underestimate the damages from CO<sub>2</sub> emissions. The IWG is currently working on a comprehensive update of the SC-GHG estimates (under E.O. 13990) taking into consideration recommendations from the National Academies of Sciences, Engineering and Medicine, recent scientific literature, public comments received on the February 2021 TSD and other input from experts and diverse stakeholder groups. The EPA is participating in the IWG's work. In addition, while that process continues, the EPA is continuously reviewing developments in the scientific literature on the SC-GHG, including more robust methodologies for estimating damages from emissions, and looking for opportunities to further improve SC-GHG estimation going forward. Most recently, the EPA has developed a draft updated SC-GHG methodology within a sensitivity analysis in the regulatory impact analysis of the EPA's November 2022 supplemental proposal for oil and gas standards that is currently undergoing external peer review and a public comment process. If EPA's updated SC-GHG methodology is finalized before these rules are finalized, the EPA intends to present monetized climate benefits using the updated SC-GHG estimates in the final RIA. See section 4 of the RIA for more discussion of this effort.

<sup>703</sup> U.S. EPA. 2020. Technical Review of EPA's Computable General Equilibrium Model, SAGE. EPA-SAB-20-010.

<sup>704</sup> See, for example, Marten, A.L., Garbaccio, R., and Wolverton, A. 2019. Exploring the General Equilibrium Costs of Sector-Specific Environmental Regulations. *Journal of the Association of Environmental and Resource Economists*, 6(6), 1065-1104.

<sup>705</sup> These results pertain to the analysis of the proposed standards for new combustion turbine EGUs and for existing steam-generating EGUs, and do not include the impact of the proposed standards for existing combustion turbine EGUs and the third phase of the proposed standards for new natural gas-fired EGUs.



In addition to CO<sub>2</sub>, these proposed rules are expected to reduce emissions of NO<sub>x</sub> and SO<sub>2</sub> and direct PM<sub>2.5</sub> nationally throughout the year. Because NO<sub>x</sub> and SO<sub>2</sub> are also precursors to secondary formation of ambient PM<sub>2.5</sub>, reducing these emissions would reduce human exposure to ambient PM<sub>2.5</sub> throughout the year and would reduce the incidence of PM<sub>2.5</sub>-attributable health effects. These proposed rules are also expected to reduce ozone season NO<sub>x</sub> emissions nationally. In the presence of sunlight, NO<sub>x</sub> and volatile organic compounds (VOCs) can undergo a chemical reaction in the atmosphere to form ozone. Reducing NO<sub>x</sub> emissions in most locations reduces human exposure to ozone and the incidence of ozone-related health effects, though the degree to which ozone is reduced will depend in part on local concentration levels of VOCs. The RIA estimates the health benefits of changes in PM<sub>2.5</sub> and ozone concentrations. The health effect endpoints, effect estimates, benefit unit-values, and how they were selected, are described in the *Estimating PM<sub>2.5</sub>- and Ozone-Attributable Health Benefits TSD*, which is referenced in the RIA for these actions. Our approach for updating the endpoints and to identify suitable epidemiologic studies, baseline incidence rates, population demographics, and valuation estimates is summarized in section 4 of the RIA.

The following PV and EAV estimates reflect projected benefits over the 2024 to 2042 period, discounted to 2024 in 2019 dollars, for the analysis of the proposed standards for new natural gas-fired EGUs and for existing coal-fired EGUs, which do not include the impact of the proposed standards for existing natural gas-fired EGUs and the third phase of the proposed standards for new natural gas-fired EGUs. We monetize benefits of the proposed standards and evaluate other costs in part to enable a comparison of costs and benefits pursuant to E.O. 12866, but we recognize there are substantial uncertainties and limitations in monetizing benefits, including benefits that have not been quantified. The projected PV of monetized climate benefits is about \$30 billion, with an EAV of about \$2.1 billion using the SC-CO<sub>2</sub> discounted at 3 percent. The projected PV of monetized health benefits is about \$68 billion, with an EAV of about \$4.8 billion discounted at 3 percent. Combining the projected monetized climate and health benefits yields a total PV estimate of about \$98 billion and EAV estimate of \$6.9 billion.

At a 7 percent discount rate, these proposed rules are expected to generate projected PV of monetized health

benefits of about \$44 billion, with an EAV of about \$4.3 billion discounted at 7 percent. The EPA notes that while OMB Circular A-4, as published in 2003, recommends using 3 percent and 7 percent discount rates as “default” values, Circular A-4 also recognizes that “special ethical considerations arise when comparing benefits and costs across generations,” and Circular A-4 acknowledges that analyses may appropriately “discount future costs and consumption benefits . . . at a lower rate than for intragenerational analysis.” Therefore, climate benefits remain discounted at 3 percent in this benefits analysis. Thus, these proposed rules would generate a PV of total monetized benefits of \$74 billion, with an EAV of \$6.4 billion discounted at a 7 percent rate.

The projected PV of monetized climate benefits for the analysis of the impact of the proposed standards for existing combustion turbines and the third phase of the proposed standards for new natural gas-fired EGUs is between about \$10 to 20 billion, with an EAV of between about \$0.7 to 1.4 billion using the SC-CO<sub>2</sub> discounted at 3 percent.

The results presented in this section provide an incomplete overview of the effects of the proposals. The monetized climate benefits estimates do not include important benefits that we are unable to fully monetize due to data and modeling limitations. In addition, important health, welfare, and water quality benefits anticipated under these proposed rules are not quantified. We anticipate that taking non-monetized effects into account would show the proposals to be more beneficial than the tables in this section reflect. Discussion of the non-monetized health, climate, welfare, and water quality benefits is found in section 4 of the RIA.

#### *E. Environmental Justice Analytical Considerations and Stakeholder Outreach and Engagement*

Consistent with the EPA’s commitment to integrating environmental justice (EJ) in the Agency’s actions, and following the directives set forth in multiple Executive Orders, the Agency has analyzed the impacts of these proposed rules on communities with potential environmental justice concerns and engaged with stakeholders representing these communities to seek input and feedback. The EPA evaluates, to the extent practicable, whether proposed GHG reductions are accompanied by changes in other health-harming

pollutants that may place further burdens on these communities.<sup>706</sup>

Executive Order 12898 is discussed in section XV.J of this preamble and analytical results are available in section 6 of the RIA.

#### 1. Introduction

Executive Order 12898 directs the EPA to identify the populations of concern who are most likely to experience unequal burdens from environmental harms; specifically, minority populations, low-income populations, and indigenous peoples. Additionally, Executive Order 13985 is intended to advance racial equity and support underserved communities through Federal government actions. The EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The EPA further defines the term fair treatment to mean that “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies”.<sup>707</sup> In recognizing that minority and low-income populations often bear an unequal burden of environmental harms and risks, the EPA continues to consider ways of protecting them from adverse public health and environmental effects of air pollution.

#### 2. Analytical Considerations

EJ concerns for each rulemaking are unique and should be considered on a case-by-case basis, and the EPA’s EJ Technical Guidance states that “[t]he analysis of potential EJ concerns for regulatory actions should address three questions:

1. Are there potential EJ concerns associated with environmental stressors affected by the regulatory action for population groups of concern in the baseline?

2. Are there potential EJ concerns associated with environmental stressors affected by the regulatory action for population groups of concern for the

<sup>706</sup> These results pertain to the analysis of the proposed standards for new combustion turbine EGUs and for existing steam-generating EGUs, and do not include the impact of the proposed standards for existing combustion turbine EGUs and the third phase of the proposed standards for new natural gas-fired EGUs.

<sup>707</sup> Plan EJ 2014. Washington, DC: U.S. EPA, Office of Environmental Justice. <https://www.epa.gov/environmentaljustice/plan-ej-2014>.

regulatory option(s) under consideration?

3. For the regulatory option(s) under consideration, are potential EJ concerns created or mitigated compared to the baseline?"

To address these questions, the EPA developed an analytical approach that considers the purpose and specifics of the rulemaking, as well as the nature of known and potential exposures and impacts. For the rules, the EPA quantitatively evaluates the proximity of existing affected facilities to potentially vulnerable and/or overburdened populations for consideration of local pollutants impacted by these rules but not modeled here (RIA section 6.4), as well as the distribution of ozone and PM<sub>2.5</sub> concentrations in the baseline and changes due to the proposed rulemakings across different demographic groups on the basis of race, ethnicity, poverty status, employment status, health insurance status, age, sex, educational attainment, and degree of linguistic isolation (RIA section 6.5). The EPA also qualitatively discusses potential EJ climate impacts (RIA section 6.3). Each of these analyses was performed to answer separate questions and is associated with unique limitations and uncertainties.

Baseline demographic proximity analyses provide information as to whether there may be potential EJ concerns associated with environmental stressors emitted from sources affected by the regulatory actions for certain population groups of concern. The baseline demographic proximity analyses examined the demographics of populations living within 5 km and 10 km of the following three sets of sources: (1) all 140 coal plants with units potentially subject to the proposed rules, (2) three coal plants retiring by January 1, 2032 with units potentially subject to the proposed rules, and (3) 19 coal plants retiring between January 1, 2032 to January 1, 2040 with units potentially subject to the proposed rules. The proximity analysis of the full population of potentially affected units greater than 25 MW indicated that the demographic percentages of the population within 10 km and 50 km of the facilities are relatively similar to the national averages. The proximity analysis of the 19 units that will retire from 1/1/32 to 1/1/40 (a subset of the total 140 units) found that the percent of the population within 10 km that is African American is higher than the national average. The proximity analysis for the 3 units that will retire by 1/1/32 (a subset of the total 140 units) found that for both the 10 km and 50 km populations the percent of the

population that is Native American for one facility is significantly above the national average, the percent of the population that is Hispanic/Latino for another facility is significantly above the national average, and all three facilities were well above the national average for both the percent below the poverty level and the percent below two times the poverty level.

Because the pollution impacts that are the focus of these rules may occur downwind from affected facilities, ozone and PM<sub>2.5</sub> exposure analyses that evaluate demographic variables are better able to evaluate any potentially disproportionate pollution impacts of these rulemakings. The baseline PM<sub>2.5</sub> and ozone exposure analyses respond to question 1 from EPA's EJ Technical Guidance document more directly than the proximity analyses, as they evaluate a form of the environmental stressor primarily affected by the regulatory actions (RIA section 6.5). Baseline ozone and PM<sub>2.5</sub> exposure analyses show that certain populations, such as Hispanics, Asians, those linguistically isolated, and those less educated may experience disproportionately higher ozone and PM<sub>2.5</sub> exposures as compared to the national average. Black populations may also experience disproportionately higher PM<sub>2.5</sub> concentrations than the reference group, and American Indian populations and children may also experience disproportionately higher ozone concentrations than the reference group. Therefore, there likely are potential EJ concerns associated with environmental stressors affected by the regulatory actions for population groups of concern in the baseline (question 1).

Finally, the EPA evaluates how post-policy regulatory alternatives of these proposed rulemakings are expected to differentially impact demographic populations, informing questions 2 and 3 from EPA's EJ Technical Guidance with regard to ozone and PM<sub>2.5</sub> exposure changes. We infer that baseline disparities in the ozone and PM<sub>2.5</sub> concentration burdens are likely to remain after implementation of the regulatory action or alternatives under consideration. This is due to the small magnitude of the concentration changes associated with these rulemakings across population demographic groups, relative to the magnitude of the baseline disparities (question 2). This EJ assessment also suggests that these actions are unlikely to mitigate or exacerbate PM<sub>2.5</sub> exposures disparities across populations of EJ concern analyzed. Regarding ozone exposures, while most policy options and future years analyzed will not likely mitigate or exacerbate ozone exposure disparities

for the population groups evaluated, ozone exposure disparities may be exacerbated for some population groups analyzed in 2030 under all regulatory options. However, the extent to which disparities may be exacerbated is likely modest, due to the small magnitude of the ozone concentration changes (question 3). Importantly, the actions described in these proposals are expected to lower PM<sub>2.5</sub> and ozone in many areas, and thus mitigate some pre-existing health risks of air pollution across all populations evaluated.

### 3. Outreach and Engagement

In outreach with potentially vulnerable communities, residents have voiced two primary concerns. First, there is the concern that their communities have experienced historically disproportionate burdens from the environmental impacts of energy production, and second, that as the sector evolves to use new technologies such as CCS and hydrogen, they may continue to face disproportionate burdens.

With regard to CCS, the EPA is proposing that CCS is a component of the BSER for new base load stationary combustion turbine EGUs, existing coal-fired steam generating units that intend to operate after 2040, and large and frequently operated existing stationary combustion turbine EGUs. The EPA recognizes and has given careful consideration to the various concerns that potentially vulnerable communities have raised with regard to the use of CCS in determining that CCS is BSER for these sources. In the following section, the EPA discusses various measures undertaken in this rulemaking and elsewhere to address community concerns on this matter.

One concern the EPA has heard from stakeholders is that adding CCS to EGUs can extend the life of an existing coal-fired steam generating unit, subjecting local residents who have already been negatively impacted by the operation of the coal-fired steam generating unit to additional harmful pollution. There are several important factors the EPA considered in evaluating the emission impact of an upgraded EGU when determining BSER for these units that intend to operate in the long term. First, CCS is the most effective add-on pollution control available for mitigation of GHG emissions from affected sources. Second, most CCS technologies work much more effectively when the EGU is emitting the lowest levels of SO<sub>2</sub> possible; therefore it is likely that as part of a CCS installation, companies will improve their EGUs' SO<sub>2</sub> control. Third, a CCS

retrofit may trigger requirements under the major NSR program because of the potential for an emissions increase of one or more pollutants due to the additional energy production by the EGU to power the CO<sub>2</sub> capture system. If the source is undergoing major NSR permitting, the permitting authority would provide an opportunity for the public to comment on the draft permit, which is another avenue for affected residents to submit input regarding additional controls that may be needed to meet best available control technology requirements for non-GHG pollutants such as NO<sub>x</sub>.<sup>708</sup>

Communities have also expressed concerns about CO<sub>2</sub> pipeline safety and geologic sequestration. As discussed in section VII.F.3.b.iii of the preamble, supercritical CO<sub>2</sub> pipeline safety is regulated by PHMSA. These regulations protect against environmental release during transport and PHMSA has announced steps to further strengthen its safety oversight of supercritical CO<sub>2</sub> pipelines, including initiating a new rulemaking to update standards for supercritical CO<sub>2</sub> pipelines and solicited research proposals to strengthen CO<sub>2</sub> pipeline safety.<sup>709</sup> Geologic sequestration of CO<sub>2</sub> is regulated by the EPA through the UIC Program under the Safe Drinking Water Act, and through the GHGRP under the Clean Air Act. UIC Class VI regulations include strong protections for communities to prevent contamination of underground sources of drinking water. These regulatory protections include a variety of measures, including proper site characterization and strict construction, operating, and monitoring requirements to ensure well and formation integrity, proper plugging of wells, and long-term project management and post-injection site care to ensure leakage prevention.<sup>710</sup> GHGRP requirements complement and build on UIC regulations through air-side monitoring and reporting requirements that provide the EPA and communities with a transparent means of evaluating the effectiveness of geologic sequestration.

<sup>708</sup> The EPA discusses the interactions between CCS and non-GHG pollutants for existing coal-fired steam generating units in section X.D.1.a.iii(B) of this preamble.

<sup>709</sup> PHMSA, "PHMSA Announces New Safety Measures to Protect Americans From Carbon Dioxide Pipeline Failures After Satartia, MS Leak." 2022. <https://www.phmsa.dot.gov/news/phmsa-announces-new-safety-measures-protect-americans-carbon-dioxide-pipeline-failures>.

<sup>710</sup> See generally Administrator Michael S. Regan, Underground Injection Control Class VI Letter to Governors (December 9, 2022), [https://www.epa.gov/system/files/documents/2022-12/AD.Regan\\_GOV\\_Sig\\_Class%20VI.12-9-22.pdf](https://www.epa.gov/system/files/documents/2022-12/AD.Regan_GOV_Sig_Class%20VI.12-9-22.pdf).

These programs work in combination to provide security and transparency.

The final concern the EPA has heard from stakeholders is about a lack of opportunity for impacted communities to voice opinions about projects like this that affect them. Recognizing the important stake that local residents have in decisions regarding EGUs in their communities, the EPA expects that states will address facility-specific concerns about how to responsibly deploy CCS and any other potential control strategies in the course of meaningful engagement under the proposed emission guidelines for existing steam generating units and existing combustion turbines, as discussed in section XII.F.1.b of the preamble. State plans should specifically ensure that community members have an opportunity to share their input if they reside near a fossil fuel-fired steam generating unit that plans to install CCS to meet the requirements of these proposed rules regarding how to responsibly deploy this technology.

With regard to the decision to construct a new combustion turbine, most of the safeguards outlined above for CCS retrofits apply. While meaningful engagement applies under emission guidelines to existing sources, there exists an opportunity for community engagement for new sources as part of the major NSR permitting process, in the event that the source triggers major NSR requirements. While new combustion turbines that co-fire with hydrogen may trigger major NSR, there are cases in which they are less likely to trigger major NSR, such as: (1) If the new combustion turbine is proposed at an existing facility and the facility is able to reduce its emissions more than the emissions increase from the combustion turbine (*e.g.*, if the combustion turbine replaces an existing coal-fired EGU and the facility has emission reduction credits from the shutdown unit), or (2) if the emissions from the new combustion turbine are low enough to not trigger major NSR.

The EPA further notes that hydrogen production presents a unique set of potential issues for vulnerable communities. During the February 27th National Tribal Energy Roundtable Webinar, one of the primary concerns articulated was the potential for fossil-derived hydrogen to essentially extend the life of petrochemical industries already creating localized pollution loading. Since hydrogen is non-toxic, and it does not produce carbon dioxide when burned, the inclusion of hydrogen in combustion turbine operations will lower overall health risks compared

with hydrocarbons. Perceived community risks with hydrogen related to storage and transportation include its combustibility and propensity to leak due to extremely low molecular weight. Despite concerns about hydrogen, its low molecular weight ensures that it dissipates and disperses quickly when released outdoors, reducing unintended combustion risks compared with other fuels.<sup>711</sup> Adequate ventilation and leak detection are available to ensure safety and are important elements in the design of hydrogen systems. Concerns around hydrogen leaks can be mitigated with hydrogen monitoring systems combined with adequate ventilation and leak detection equipment, including special flame detectors.<sup>712</sup> Further, building and operational codes and standards developed specifically for hydrogen's properties can minimize risks around hydrogen usage in a community.<sup>713</sup>

New combustion turbine models designed to combust hydrogen, and those potentially being retrofit to combust hydrogen, may be co-located with electrolyzers that produce the hydrogen the facility will use. In such instances, water scarcity could be exacerbated in some areas by the freshwater demands of electrolytic hydrogen production, which could pose a particular challenge for vulnerable communities. As such, electrolyzer siting will need to take water availability into account. Examples for sustainable siting for electrolyzers are emerging in Europe, which has begun to employ Sustainable Value Methodology designed to be sensitive to water access and availability and includes, "decision-making support, combining economic, environmental and social criteria".<sup>714</sup> We also expect advances in electrolytic technology over time to reduce water demand, including the potential to enabling sea-water usage in electrolyzers.<sup>715</sup>

<sup>711</sup> Department of Energy, Safe Use of Hydrogen <https://www.energy.gov/eere/fuelcells/safe-use-hydrogen>.

<sup>712</sup> *Ibid.*

<sup>713</sup> Department of Energy, Safety Codes and Standards <https://www.energy.gov/eere/fuelcells/safety-codes-and-standards-basics>.

<sup>714</sup> Journal of Cleaner Production, Volume 315, 15 September 2021, 128124, "Water Availability and Water Usage Solutions for Electrolysis in Hydrogen Production" Simoes, Sophia et al., <https://www.sciencedirect.com/science/article/pii/S09596526211023428>.

<sup>715</sup> Sun, F., Qin, J., Wang, Z. et al. Energy-saving hydrogen production by chlorine-free hybrid seawater splitting coupling hydrazine degradation. *Nat Commun* 12, 4182 (2021). <https://doi.org/10.1038/s41467-021-24529-3>.

### F. Grid Reliability Considerations

The requirements for sources and states set forth in these proposed actions were developed cognizant of concerns about an electric grid under transition, and related reliability considerations.

As previously stated, a variety of important influences have led to notable changes in the generation mix and expectations of how the power sector will evolve. These trends have generally put existing high-emitting generators under greater economic pressure and will continue to do so even absent any EPA action pursuant to CAA section 111, and that is manifest in various economic projections and modeling of the electric power system. Recent legislation, including the IJA, the IRA, and State policies have amplified these trends, with continued change expected for the existing fleet of EGUs. Moreover, many regions of the country have experienced a significant increase in the frequency and severity of extreme weather events—events that are notably projected to worsen if GHG emissions are not adequately controlled. These events have impacted energy infrastructure and both the demand for and supply of electricity. A wide range of stakeholders including power generators, grid operators and State and Federal regulators are actively engaged in ensuring the reliability of the electric power system is maintained and enhanced in the face of these changes.

As explained in this preamble, these proposed actions take account of the rapidly evolving power sector and extensive input received from power companies and other stakeholders on the future of these regulated sources, while ensuring that new natural gas-fired combustion turbines and existing steam EGUs achieve significant and cost-effective reductions in GHG emissions through the application of adequately demonstrated control technologies. Preserving the ability of power companies and grid operators to maintain system reliability has been a paramount consideration in the development of these proposed actions. Accordingly, these proposed rules include significant design elements that are intended to allow the power sector continued resource and operational flexibility, and to facilitate long-term planning during this dynamic period. Among other things, these elements include subcategories of new natural gas-fired combustion turbines that allow for the stringency of standards of performance to vary by capacity factor; subcategories for existing steam EGUs that are based on operating horizons and fuel reflecting the request of industry

stakeholders; compliance deadlines for both new and existing EGUs that provide ample lead time to plan; and proposed State plan flexibilities. In addition, this preamble discusses EPA's intention to exercise its enforcement discretion where needed to address any potential instances in which individual EGUs may need to temporarily operate for reliability reasons, and to set forth clear and transparent expectations for administrative compliance orders to ensure that compliance with these proposed rules can be achieved without impairing the ability of power companies and grid operators to maintain reliability. As such, these proposed rules provide the flexibility needed to avoid reliability concerns while still securing the pollution reductions consistent with section 111 of the CAA.

To support these proposed actions, the EPA has conducted an analysis of resource adequacy based upon power sector modeling and projections of the standards on existing steam generating units, and the first two phases of the standards on new combustion turbines, as well as the results of the spreadsheet-based analysis of the standards on existing combustion turbines and the third phase of the standards on new combustion turbines, that can be found in the RIA. Any potential impact of these proposed actions is dependent upon a myriad of decisions and compliance choices source owners and operators may pursue. It is important to recognize that the proposed rules provide multiple flexibilities that preserve the ability of responsible authorities to maintain electric reliability. While not explicitly modeled using IPM, the proposed emission guidelines for existing natural gas-fired EGUs are estimated to have very little incremental impact on resource adequacy. The guidelines would affect a subset of the total natural gas fleet, and units that install CCS are still able to maintain capacity accreditation values (after accounting for capacity de-rates). Moreover, units that operate below 50 percent capacity factor annually (and are not subject to the CCS requirement) would still be able to operate at higher levels during times of greater demand, thereby maintaining their capacity accreditation values.

The results presented in the *Resource Adequacy Analysis* TSD, which is available in the docket, show that the projected impacts of the proposed rules on power system operations, under conditions preserving resource adequacy, are modest and manageable. For the specific scenarios analyzed in the RIA, the implementation of the

proposed rules can be achieved while maintaining resource adequacy even as shifts in existing and new capacity occur. Retirements are offset by additions, along with reserve transfers where/when needed, which demonstrates that ample compliance pathways exist for sources while preserving resource adequacy.

The EPA routinely consults with the DOE and FERC on electric reliability and intends to continue to do so as it develops and implements a final rule. This ongoing engagement will be strengthened with routine and comprehensive communication between the agencies under the DOE–EPA *Joint Memorandum of Understanding on Interagency Communication and Consultation on Electric Reliability* signed on March 8, 2023.<sup>716</sup> The memorandum will provide greater interagency engagement on electric reliability issues at a time of significant dynamism in the power sector, allowing the EPA and the DOE to use their considerable expertise in various aspects of grid reliability to support the ability of Federal and State regulators, grid operators, regional reliability entities, and power companies to continue to deliver a high standard of reliable electric service. As the power sector continues to change and as the agencies carry out their respective authorities, the agencies intend to continue to engage and collectively monitor, share information, and consult on policy and program decisions to assure the continued reliability of the bulk power system.

In addition, the EPA observes that power companies, grid operators, and State public utility commissions have well-established procedures in place to preserve electric reliability in response to changes in the generating portfolio, and expects that those procedures will continue to be effective in addressing compliance decisions that power companies may make over the extended time period for implementation of these proposed rules. In response to any regulatory requirement, affected sources will have to take some type of action to reduce emissions, which will generally have costs. Some EGU owners may conclude that, all else being equal, retiring a particular EGU is likely to be the more economic option from the perspective of the unit's customers and/or owners because there are better opportunities for using the capital than investing it in new emissions controls at

<sup>716</sup> *Joint Memorandum of Understanding on Interagency Communication and Consultation on Electric Reliability* (March 8, 2023). <https://www.epa.gov/power-sector/electric-reliability-mou>.

the unit. Such a retirement decision will require the unit’s owner to follow the processes put in place by the relevant RTO, balancing authority, or State regulator to protect electric system reliability. These processes typically include analysis of the potential impacts of the proposed EGU retirement on electrical system reliability, identification of options for mitigating any identified adverse impacts, and, in some cases, temporary provision of additional revenues to support the EGU’s continued operation until longer-term mitigation measures can be put in place. In some rare instances where the reliability of the system is jeopardized due to extreme weather events or other unforeseen emergencies, authorities can request a temporary reprieve from environmental requirements and constraints (through DOE) in order to meet electric demand and maintain reliability. These proposed actions do not interfere with these already available provisions, but rather provides a long-term pathway for sources to develop and implement a proper plan to reduce emissions while maintaining adequate supplies of electricity.

**XV. Statutory and Executive Order Reviews**

*A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

These actions were submitted to the Office of Management and Budget

(OMB) for review under Section 3(f)(1) of Executive Order 12866. Any changes made in response to recommendations received as part of Executive Order 12866 review have been documented in the docket. The EPA prepared an analysis of the potential costs and benefits associated with these actions. This analysis, “Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule,” is available in the docket.

Table 10 presents the estimated present values (PV) and equivalent annualized values (EAV) of the projected climate benefits, health benefits, compliance costs, and net benefits of the proposed rule in 2019 dollars discounted to 2024. This analysis covers the impacts of the proposed standards for new combustion turbines and for existing steam generating EGUs, and does not include the impact of the proposed standards for existing combustion turbines and the third phase of the proposed standards for new combustion turbines. The estimated monetized net benefits are the projected monetized benefits minus the projected monetized costs of the proposed rules.

The projected climate benefits in table 8 are based on estimates of the social cost of carbon (SC-CO<sub>2</sub>) at a 3 percent discount rate and are discounted using a 3 percent discount rate to obtain the PV and EAV estimates in the table. Under E.O. 12866, the EPA is directed to consider the costs and benefits of its actions. Accordingly, in addition to the projected climate benefits of the proposals from anticipated reductions in CO<sub>2</sub> emissions, the projected monetized health benefits include those related to public health associated with projected reductions in fine particulate matter (PM<sub>2.5</sub>) and ozone concentrations. The projected health benefits are associated with several point estimates and are presented at real discount rates of 3 and 7 percent. The power industry’s compliance costs are represented in this analysis as the change in electric power generation costs between the baseline and policy scenarios. In simple terms, these costs are an estimate of the increased power industry expenditures required to implement the proposed requirements.

These results present an incomplete overview of the potential effects of the proposals because important categories of benefits—including benefits from reducing HAP emissions—were not monetized and are therefore not reflected in the benefit-cost tables. The EPA anticipates that taking non-monetized effects into account would show the proposals to have a greater net benefit than this table reflects.

**TABLE 10—PROJECTED MONETIZED BENEFITS, COMPLIANCE COSTS, AND NET BENEFITS OF THE PROPOSED RULES, 2024 THROUGH 2042<sup>717</sup>**

[Billions 2019\$, discounted to 2024]<sup>a</sup>

	3% Discount rate	7% Discount rate
<b>Present Value:</b>		
Climate Benefits <sup>c</sup> .....	\$30	\$30
Health Benefits <sup>d</sup> .....	68	44
Compliance Costs .....	14	10
Net Benefits <sup>e</sup> .....	85	64
<b>Equivalent Annualized Value<sup>b</sup>:</b>		
Climate Benefits <sup>c</sup> .....	2.1	2.1
Health Benefits <sup>d</sup> .....	4.8	4.3
Compliance Costs .....	0.95	0.98
Net Benefits <sup>e</sup> .....	5.9	5.4

<sup>a</sup> Values have been rounded to two significant figures. Rows may not appear to sum correctly due to rounding.

<sup>b</sup> The annualized present value of costs and benefits are calculated over the 20-year period from 2024 to 2042.

<sup>c</sup> Climate benefits are based on changes (reductions) in CO<sub>2</sub> emissions. Climate benefits in this table are based on estimates of the SC-CO<sub>2</sub> at a 3 percent discount rate and are discounted using a 3 percent discount rate to obtain the PV and EAV estimates in the table. The EPA does not have a single central SC-CO<sub>2</sub> point estimate. We emphasize the importance and value of considering the benefits calculated using all four SC-CO<sub>2</sub> estimates (model average at 2.5 percent, 3 percent, and 5 percent discount rates; 95th percentile at 3 percent discount rate). As discussed in section 4 of the RIA, consideration of climate benefits calculated using discount rates below 3 percent, including 2 percent and lower, is also warranted when discounting intergenerational impacts.

<sup>717</sup> This analysis pertains to the proposed standards for new combustion turbines and for existing steam generating EGUs and does not

include the impact of the proposed standards for existing combustion turbines and the third phase of

the proposed standards for new combustion turbines.

<sup>d</sup>The EPA notes that while OMB Circular A-4, as published in 2003, recommends using 3 percent and 7 percent discount rates as “default” values, Circular A-4 also recognizes that “special ethical considerations arise when comparing benefits and costs across generations,” and Circular A-4 acknowledges that analyses may appropriately “discount future costs and consumption benefits . . . at a lower rate than for intragenerational analysis.” Therefore, climate benefits remain discounted at 3 percent in this benefits analysis.

<sup>e</sup>The projected monetized health benefits include those related to public health associated with reductions in PM<sub>2.5</sub> and ozone concentrations. The projected health benefits are associated with several point estimates and are presented at real discount rates of 3 and 7 percent.

<sup>f</sup>Several categories of benefits remain unmonetized and are thus not reflected in the table. Non-monetized benefits include important climate, health, welfare, and water quality benefits and are described in RIA Table 4-6.

As shown in table 10, the proposed rules are projected to reduce greenhouse gas emissions in the form of CO<sub>2</sub>, producing a projected PV of monetized climate benefits of about \$30 billion, with an EAV of about \$2.1 billion using the SC-CO<sub>2</sub> discounted at 3 percent. The proposed rules are also projected to reduce PM<sub>2.5</sub> and ozone concentrations, producing a projected PV of monetized health benefits of about \$68 billion, with an EAV of about \$4.8 billion discounted at 3 percent.

The PV of the projected compliance costs are \$14 billion, with an EAV of about \$0.95 billion discounted at 3 percent. Combining the projected benefits with the projected compliance costs yields a net benefit PV estimate of about \$85 billion and EAV of about \$5.9 billion at a 3 percent discount rate.

At a 7 percent discount rate, the proposed rules are expected to generate projected PV of monetized health benefits of about \$44 billion, with an EAV of about \$4.3 billion. Climate benefits remain discounted at 3 percent in this net benefits analysis. Thus, the proposed rules would generate a PV of monetized benefits of about \$74 billion, with an EAV of about \$6.4 billion discounted at a 7 percent rate. The PV of the projected compliance costs are about \$10 billion, with an EAV of \$0.98 billion discounted at 7 percent. Combining the projected benefits with the projected compliance costs yields a net benefit PV estimate of about \$64 billion and an EAV of about \$5.4 billion discounted at 7 percent.

The EPA has developed a separate analysis of the proposed standards for existing combustion turbines and third phase of the proposed standards for new natural gas-fired EGUs over the 2024 to 2042 period. This analysis includes estimated compliance costs and climate benefits, and is located in Section 8 of the RIA. The PV of the compliance costs, discounted at the 3-percent rate, is estimated to be between about \$5.7 to 10 billion, with an EAV of between about \$0.40 to 0.70 billion. At the 7 percent discount rate, the PV of the compliance costs is estimated to be between about \$ 3.5 to 6.2 billion, with an EAV of about \$ 0.34 to 0.60 billion. The PV of the climate benefits, discounted at the 3-percent rate, is estimated to be between about \$10 to 20

billion, with an EAV of between about \$0.70 to 1.4 billion.

As discussed in section XIV of this preamble, the monetized benefits estimates provide an incomplete overview of the beneficial impacts of the proposals. In particular, the monetized climate benefits are incomplete and an underestimate as explained in section 4.2 of the RIA. In addition, important health, welfare, and water quality benefits anticipated under these proposed rules are not quantified or monetized. The EPA anticipates that taking non-monetized effects into account would show the proposals to have greater benefits than the estimates in the preamble and RIA reflect. Simultaneously, the estimates of compliance costs used in the net benefits analysis may provide an incomplete characterization of the true costs of the rule. The balance of unquantified benefits and costs is ambiguous but is unlikely to change the result that the benefits of the proposals exceed the costs by billions of dollars annually.

We also note that the RIA follows the EPA’s historic practice of using a technology-rich partial equilibrium model of the electricity and related fuel sectors to estimate the incremental costs of producing electricity under the requirements of proposed and final major EPA power sector rules. In Appendix B of the RIA for these actions, the EPA has also included an economy-wide analysis that considers additional facets of the economic response to the proposed rules, including the full resource requirements of the expected compliance pathways, some of which are paid for through subsidies in the partial equilibrium analysis. The social cost estimates in the economy-wide analysis and discussed in Appendix B of the RIA are still far below the projected benefits of the proposed rules.

#### *B. Paperwork Reduction Act (PRA)*

##### 1. 40 CFR Part 60, Subpart TTTT

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2060-0685.

##### 2. 40 CFR Part 60, Subpart TTTT

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 2771.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

#### *Respondents/affected entities:*

Owners and operators of fossil-fuel fired EGUs.

#### *Respondent’s obligation to respond:*

Mandatory.

*Estimated number of respondents:* 2.

*Frequency of response:* Annual.

*Total estimated burden:* 110 hours (per year). Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* \$14,000 (per year), includes \$0 annualized capital or operation & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA’s regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency’s need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. The EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB’s Office of Information and Regulatory Affairs using the interface at [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting “Currently under Review—Open for Public Comments” or by using the search function. OMB must receive comments no later than July 24, 2023.

##### 3. 40 CFR Part 60, Subpart UUUU

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 2770.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

This rule imposes specific requirements on State governments with existing fossil fuel-fired steam generating units. The information collection requirements are based on the recordkeeping and reporting burden associated with developing, implementing, and enforcing a plan to limit GHG emissions from existing EGUs. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The annual burden for this collection of information for the states (averaged over the first 3 years following promulgation) is estimated to be 104,000 hours at a total annual labor cost of \$13.1 million. The annual burden for the Federal government associated with the State collection of information (averaged over the first 3 years following promulgation) is estimated to be 27,347 hours at a total annual labor cost of \$1.8 million. Burden is defined at 5 CFR 1320.3(b).

*Respondents/affected entities:* States with one or more designated facilities covered under subpart UUUUb.

*Respondent's obligation to respond:* Mandatory.

*Estimated number of respondents:* 50.

*Frequency of response:* Once.

*Total estimated burden:* 104,000 hours (per year). Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* \$13,163,689, includes \$36,750 annualized capital or operation & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. The EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs using the interface at [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under Review—Open for Public Comments" or by using

the search function. OMB must receive comments no later than July 24, 2023.

#### 4. 40 CFR Part 60, Subpart UUUUa

This proposed rule does not impose an information collection burden under the PRA.

#### C. Regulatory Flexibility Act (RFA)

I certify that these actions will not have a significant economic impact on a substantial number of small entities under the RFA. The small entities subject to the requirements of the NSPS are private companies, investor-owned utilities, cooperatives, municipalities, and sub-divisions, that would seek to build and operate stationary combustion turbines in the future. The Agency has determined that seven small entities may be so impacted, and may experience an impact of 0 percent to 0.9 percent of revenues in 2035. Details of this analysis are presented in section 5.3 of the RIA.

The EPA started the Small Business Advocacy Review (SBAR) panel process prior to determining if the NSPS would have a significant economic impact on a substantial number of small entities under the RFA. The EPA conducted an initial outreach meeting with small entity representatives on December 14, 2022. The EPA sought input from representatives of small entities while developing the proposed NSPS which enabled the EPA to hear directly from these representatives about the regulation of GHG emissions from EGUs. The purpose of the meeting was to provide general background on the NSPS rulemaking, answer questions, and solicit input. Fifteen various small entities that potentially would be affected by the NSPS attended the meeting. The representatives included small entity municipalities, cooperatives, and industry professional organizations. When the EPA determined the NSPS would not have a significant economic impact on a substantial number of small entities under the RFA, the EPA did not proceed with convening the SBAR panel.

Emission guidelines will not impose any requirements on small entities. Specifically, emission guidelines established under CAA section 111(d) do not impose any requirements on regulated entities and, thus, will not have a significant economic impact upon a substantial number of small entities. After emission guidelines are promulgated, states establish standards on existing sources, and it is those State requirements that could potentially impact small entities.

The analysis in the accompanying RIA is consistent with the analysis of

the analogous situation arising when the EPA establishes NAAQS, which do not impose any requirements on regulated entities. As here, any impact of a NAAQS on small entities would only arise when states take subsequent action to maintain and/or achieve the NAAQS through their State implementation plans. See *American Trucking Assoc. v. EPA*, 175 F.3d 1029, 1043–45 (D.C. Cir. 1999) (NAAQS do not have significant impacts upon small entities because NAAQS themselves impose no regulations upon small entities).

The EPA is aware that there is substantial interest in the proposed rules among small entities and invites comments on all aspects of the proposals and their impacts, including potential impacts on small entities.

#### D. Unfunded Mandates Reform Act of 1995 (UMRA)

The proposed NSPS contain a Federal mandate under UMRA, 2 U.S.C. 1531–1538, that may result in expenditures of \$100 million or more for the private sector in any one year. The proposed NSPS do not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538 for State, local, and Tribal governments, in the aggregate. Accordingly, the EPA prepared, under section 202 of UMRA, a written statement of the benefit-cost analysis, which is in section XIV of this preamble and in the RIA.

The proposed repeal of the ACE Rule and emission guidelines do not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and do not significantly or uniquely affect small governments. The proposed emission guidelines do not impose any direct compliance requirements on regulated entities, apart from the requirement for states to develop plans to implement the guidelines under CAA section 111(d) for designated EGUs. The burden for states to develop CAA section 111(d) plans in the 24-month period following promulgation of the emission guidelines was estimated and is listed in section XV.B, but this burden is estimated to be below \$100 million in any one year. As explained in section XII.F.6, the proposed emission guidelines do not impose specific requirements on Tribal governments that have designated EGUs located in their area of Indian country.

The proposed actions are not subject to the requirements of section 203 of UMRA because they contain no regulatory requirements that might significantly or uniquely affect small governments.

In light of the interest in these rules among governmental entities, the EPA



initiated consultation with governmental entities. The EPA invited the following 10 national organizations representing State and local elected officials to a virtual meeting on September 22, 2022: (1) National Governors Association, (2) National Conference of State Legislatures, (3) Council of State Governments, (4) National League of Cities, (5) U.S. Conference of Mayors, (6) National Association of Counties, (7) International City/County Management Association, (8) National Association of Towns and Townships, (9) County Executives of America, and (10) Environmental Council of States. These 10 organizations representing elected State and local officials have been identified by the EPA as the “Big 10” organizations appropriate to contact for purpose of consultation with elected officials. Also, the EPA invited air and utility professional groups who may have State and local government members, including the Association of Air Pollution Control Agencies, National Association of Clean Air Agencies, and American Public Power Association, Large Public Power Council, National Rural Electric Cooperative Association, and National Association of Regulatory Utility Commissioners to participate in the meeting. The purpose of the consultation was to provide general background on these rulemakings, answer questions, and solicit input from State and local governments. Subsequent to the September 22, 2022, meeting, the EPA received letters from five organizations. These letters were submitted to the pre-proposal non-rulemaking docket. See Docket ID No. EPA-HQ-OAR-2022-0723-0013, EPA-HQ-OAR-2022-0723-0016, EPA-HQ-OAR-2022-0723-0017, EPA-HQ-OAR-2022-0723-0020, and EPA-HQ-OAR-2022-0723-0021. For summary of the UMR consultation see the memorandum in the docket titled, *Federalism Pre-Proposal Consultation Summary*.

#### *E. Executive Order 13132: Federalism*

The proposed NSPS and the proposed repeal of the ACE Rule do not have federalism implications. These actions will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

The EPA has concluded that the proposed emission guidelines may have federalism implications, because they may impose substantial direct compliance costs on State or local

governments, and the Federal Government will not provide the funds necessary to pay these costs.

Any potential federalism implications arise from the provisions of CAA section 111(d)(1), which direct the EPA to “prescribe regulations . . . under which each State shall submit to the [EPA] a [state] plan . . .” establishing standards of performance for sources in the State. As discussed in the Supporting Statement found in the docket for this rulemaking, the development of State plans will entail many hours of staff time to develop and coordinate programs for compliance with the proposed emission guidelines, as well as time to work with State legislatures as appropriate, and develop a plan submittal.

Although the direct compliance costs may not be substantial, the EPA nonetheless elected to consult with representatives of State and local governments in the process of developing these actions to permit them to have meaningful and timely input into their development. The EPA’s consultation regarded planned actions for the NSPS and emission guidelines. The EPA invited the following 10 national organizations representing State and local elected officials to a virtual meeting on September 22, 2022: (1) National Governors Association, (2) National Conference of State Legislatures, (3) Council of State Governments, (4) National League of Cities, (5) U.S. Conference of Mayors, (6) National Association of Counties, (7) International City/County Management Association, (8) National Association of Towns and Townships, (9) County Executives of America, and (10) Environmental Council of States. These 10 organizations representing elected State and local officials have been identified by the EPA as the “Big 10” organizations appropriate to contact for purpose of consultation with elected officials. Also, the EPA invited air and utility professional groups who may have State and local government members, including the Association of Air Pollution Control Agencies, National Association of Clean Air Agencies, and American Public Power Association, Large Public Power Council, National Rural Electric Cooperative Association, and National Association of Regulatory Utility Commissioners to participate in the meeting. The purpose of the consultation was to provide general background on these rulemakings, answer questions, and solicit input from State and local governments. Subsequent to the September 22, 2022, meeting, the EPA received letters from

five organizations. These letters were submitted to the pre-proposal non-rulemaking docket. See Docket ID No. EPA-HQ-OAR-2022-0723-0013, EPA-HQ-OAR-2022-0723-0016, EPA-HQ-OAR-2022-0723-0017, EPA-HQ-OAR-2022-0723-0020, and EPA-HQ-OAR-2022-0723-0021. For a summary of the Federalism consultation see the memorandum in the docket titled *Federalism Pre-Proposal Consultation Summary*. A detailed Federalism Summary Impact Statement (FSIS) describing the most pressing issues raised in pre-proposal and post-proposal comments will be forthcoming with the final emission guidelines, as required by section 6(b) of Executive Order 13132. In the spirit of E.O. 13132, and consistent with EPA policy to promote communications between State and local governments, the EPA specifically solicits comment on these proposed actions from State and local officials.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

These actions do not have Tribal implications, as specified in Executive Order 13175. The proposed NSPS would impose requirements on owners and operators of new or reconstructed stationary combustion turbines and emission guidelines would not impose direct requirements on Tribal governments. Tribes are not required to develop plans to implement the emission guidelines developed under CAA section 111(d) for designated EGUs. The EPA is aware of six fossil fuel-fired steam generating units located in Indian country but is not aware of any fossil fuel-fired steam generating units owned or operated by Tribal entities. The EPA notes that the proposed emission guidelines do not directly impose specific requirements on EGU sources, including those located in Indian country, but before developing any standards for sources on Tribal land, the EPA would consult with leaders from affected Tribes. Thus, Executive Order 13175 does not apply to these actions.

Because the EPA is aware of Tribal interest in these proposed rules and consistent with the *EPA Policy on Consultation and Coordination with Indian Tribes*, the EPA offered government-to-government consultation with Tribes and conducted stakeholder engagement.

The EPA will hold additional meetings with Tribal environmental staff to inform them of the content of these proposed rules as well as offer government-to-government consultation with Tribes. The EPA specifically

solicits additional comment on these proposed rules from Tribal officials.

*G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks Populations and Low-Income Populations*

Executive Order 13045 (62 FR 19885, April 23, 1997) directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because the EPA does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. The EPA evaluated the health benefits of the CO<sub>2</sub>, ozone and PM<sub>2.5</sub> emissions reductions and the results of this evaluation are contained in the RIA and are available in the docket. The EPA believes that the PM<sub>2.5</sub>-related, ozone-related, and CO<sub>2</sub>-related benefits projected under these proposed rules will improve children's health. Additionally, the PM<sub>2.5</sub> and ozone EJ exposure analyses in section 6 of the RIA suggests that nationally, children (ages 0–17) will experience at least as great a reduction in PM<sub>2.5</sub> and ozone exposures as adults (ages 18–64) in 2028, 2030, 2035 and 2040 under all regulatory alternatives of these rulemakings.

*H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

These actions, which are significant regulatory actions under Executive Order 12866, are likely to have a significant adverse effect on the supply, distribution or use of energy. The EPA has prepared a Statement of Energy Effects for these action as follows. This analysis pertains to the proposed standards for new combustion turbines and for existing steam generating EGUs, and does not include the impact of the proposed standards for existing combustion turbines and the third phase of the proposed standards for new combustion turbines. The EPA estimates a 0.2 percent increase in retail electricity prices on average, across the contiguous U.S. in 2035, and a 28 percent reduction in coal-fired electricity generation in 2035 as a result of these actions. The EPA projects that utility power sector delivered natural gas prices will decrease 2.4 percent in 2035. For more information on the estimated energy effects, please refer

sections 5.1 and 8.3.3 of the RIA, which is in the public docket.

*I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51*

These proposed actions involve technical standards. Therefore, the EPA conducted searches for the New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule through the Enhanced National Standards Systems Network (NSSN) Database managed by the American National Standards Institute (ANSI). Searches were conducted for EPA Method 19 of 40 CFR part 60, appendix A. No applicable voluntary consensus standards were identified for EPA Method 19. For additional information, please see the March 23, 2023, memorandum titled, *Voluntary Consensus Standard Results for New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule*.

The EPA welcomes comments on this aspect of the proposed rulemakings and, specifically, invites the public to identify potentially applicable VCS and to explain why such standards should be used in these regulations.

*J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order 12898 (59 FR 7629; February 16, 1994) directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations (people of color and/or Indigenous peoples) and low-income populations.

For new sources constructed after the date of publication of this proposed action under CAA section 111(b), the EPA believes that it is not practicable to assess whether the human health or environmental conditions that exist prior to this action result in

disproportionate and adverse effects on people of color, low-income populations and/or Indigenous peoples, because the location and number of new sources is unknown.

For existing sources of this proposed action under CAA section 111(d), the EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on people of color, low-income populations, and/or Indigenous peoples. The EPA believes that this proposed action is not likely to change disproportionate and adverse PM<sub>2.5</sub> exposure impacts on people of color, low-income populations, Indigenous peoples, and/or other potential populations of concern evaluated in the future analytical years. The EPA also believes that this proposed action is not likely to change disproportionate and adverse ozone exposure impacts on people of color, low-income populations, Indigenous peoples, and/or other potential populations of concern evaluated in 2028, 2035, and 2040. However, in the analytical year of 2030, this action is likely to slightly increase existing national level disproportionate and adverse ozone exposure impacts on Asian populations, Hispanic populations, and those linguistically isolated.

The EPA believes that it is not practicable to assess whether the GHG impacts associated with this action are likely to result in a change in disproportionate and adverse effects on people of color, low-income populations and/or Indigenous peoples. However, the EPA believes that the projected total cumulative power sector reduction of 617 million metric tons of CO<sub>2</sub> emissions between 2028 and 2042 will have a beneficial effect on populations at risk of climate change effects/impacts. Research indicates that some communities of color, specifically populations defined jointly by ethnic/racial characteristics and geographic location, may be uniquely vulnerable to climate change health impacts in the U.S. See sections VII, X, and XIV of this preamble for further information regarding GHG controls and emission reductions.

**Michael S. Regan,**  
*Administrator.*

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Part IV

## Department of Commerce

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Bureau of Industry and Security

15 CFR Parts 734, 746 and 750

Implementation of Additional Sanctions Against Russia and Belarus Under the Export Administration Regulations (EAR) and Refinements to Existing Controls; Final Rule

**DEPARTMENT OF COMMERCE****Bureau of Industry and Security****15 CFR Parts 734, 746 and 750**

[Docket No. 230515–0131]

RIN 0694–AJ17

**Implementation of Additional Sanctions Against Russia and Belarus Under the Export Administration Regulations (EAR) and Refinements to Existing Controls****AGENCY:** Bureau of Industry and Security, Department of Commerce.**ACTION:** Final rule.

**SUMMARY:** In response to the Russian Federation’s (Russia’s) ongoing aggression against Ukraine, as substantially enabled by Belarus, the Department of Commerce is strengthening its existing sanctions under the Export Administration Regulations (EAR) against Russia and Belarus, including by expanding the scope of the EAR’s Russian and Belarusian Industry Sector Sanctions and by expanding the foreign direct product rule that currently applies to Russia and Belarus to apply to the temporarily occupied Crimea region of Ukraine as well. Additionally, this rule revises recent restrictions targeting Iran’s supply of Unmanned Aerial Vehicles to Russia. This rule also refines existing export controls on Russia and Belarus. The Department of Commerce is taking these actions to enhance the effectiveness of its controls on these countries and to better align them with those implemented by U.S. allies and partners.

**DATES:** This rule is effective on May 19, 2023.

**FOR FURTHER INFORMATION CONTACT:** For general questions on this final rule, contact Eileen Albanese, Director, Office of National Security and Technology Transfer Controls, Bureau of Industry and Security, Department of Commerce, Phone: (202) 482–0092, Fax: (202) 482–482–3355, Email: [rp2@bis.doc.gov](mailto:rp2@bis.doc.gov). For emails, include “Russia, Belarus, and Iran May 2023 sanctions” in the subject line.

**SUPPLEMENTARY INFORMATION:****I. Background**

In response to Russia’s February 2022 further invasion of Ukraine, BIS imposed extensive sanctions on Russia under the Export Administration Regulations (15 CFR parts 730–774) (EAR) as part of the final rule *Implementation of Sanctions Against Russia Under the Export Administration*

*Regulations (EAR)* (the Russia Sanctions Rule), effective on February 24, 2022, and published on March 3, 2022 (87 FR 12226). Effective March 2, 2022, BIS also imposed similar sanctions on Belarus under the EAR in a final rule, *Implementation of Sanctions Against Belarus* (“Belarus Sanctions Rule”), published on March 8, 2022 (87 FR 13048). BIS has published a number of additional final rules strengthening the export controls on Russia and Belarus, in coordination with U.S. allies and partners. Most recently, in February 2023, as part of a series of U.S.

Government actions undertaken at the one-year mark of Russia’s war against Ukraine, BIS published a final rule effective February 24, 2023, that enhanced and strengthened existing sanctions under the EAR, including by rendering additional items subject to licensing requirements under the EAR’s Russian and Belarusian Industry Sector Sanctions and “luxury goods” sanctions. In addition to ensuring the effectiveness of the EAR’s measures, this rule also better aligned the EAR’s measures with those implemented by our partners and allies on both countries. *See* 88 FR 12175 (Feb. 27, 2023). Taken together, these actions under the EAR reflect the U.S. Government’s position that Russia’s invasion of Ukraine and Belarus’s complicity in the invasion, flagrantly violated international law, are contrary to U.S. national security and foreign policy interests, and undermine global order, peace, and security.

The export control measures in this final rule build upon the policy objectives set forth in the earlier rules referenced above. The adoption of these measures, undertaken in part to better align U.S. controls with the stringent measures implemented by partner and ally countries, will enhance the effectiveness of the multilateral sanctions on Russia by further limiting Russia’s access to items that enable its military capabilities and to sources of revenue that could support those capabilities. Additionally, the new or expanded controls specified in this rule target Belarus as part of the U.S. response to the country’s complicity in Russia’s aggression, as well as Iran’s support of Russia.

**II. Overview of New Controls**

This rule revises the EAR to enhance and strengthen the existing sanctions against Russia and Belarus by expanding the scope of the Russian and Belarusian industry sector sanctions to better align them with the controls that have been implemented by U.S. allies and partners imposing substantially

similar controls on Russia and Belarus, including a control added on Iran effective February 24, 2023 pursuant to the rule, *Export Control Measures Under the Export Administration Regulations (EAR) to Address Iranian Unmanned Aerial Vehicles (UAVs) and Their Use by the Russian Federation* that targeted Iran’s supply of UAVs to Russia. *See* 88 FR 12150 (Feb. 27, 2023) (Iran UAVs rule). For similar policy reasons, this rule also refines other controls on Russia and Belarus that were imposed in response to the February 2022 further invasion of Ukraine.

**III. Amendments to the Export Administration Regulations (EAR)**

This rule enhances and strengthens the sanctions that have been implemented on Russia, Belarus, the temporarily occupied Crimea region of Ukraine, and Iran under the EAR, as described under Sections A and B below. The regulatory revisions described under Section A. Imposition of new export controls on Russia, Belarus, the temporarily occupied Crimea region of Ukraine, and Iran, including to align the EAR’s controls with those imposed by U.S. allies and partners, include:

- Expansion of Russian and Belarusian Industry Sector Sanctions under supplement no. 4 to part 746 to add additional items to align with controls imposed by U.S. partners and allies and to make other changes to render the EAR’s controls stronger, more effective, and easier to understand;
- Expansion of Russian and Belarusian Industry Sector Sanctions under supplement no. 6 to part 746 to add additional items to align with controls imposed by U.S. partners and allies and to make other changes to render the EAR’s controls stronger, more effective, and easier to understand;
- Expansion of Items that Require a License Under § 746.7 When Destined to Iran and Under § 746.8 When Destined to Russia or Belarus under supplement no. 7 to part 746 to add an additional item to align with controls imposed by U.S. partners and allies and to make other changes to render the EAR’s controls stronger, more effective, and easier to understand; *and*
- Expansion of the Russia/Belarus Foreign-Direct Product (FDP) rule to add the temporarily occupied Crimea region of Ukraine and conforming EAR changes to strengthen the EAR’s controls on the temporarily occupied Crimea region of Ukraine, thereby making it more difficult for items to be procured for Russia’s use in Crimea in support of its ongoing military aggression in Ukraine.

*A. Imposition of New Export Controls on Russia, Belarus, the Temporarily Occupied Crimean Region of Ukraine, and Iran, Including Changes To Align Controls With Those Imposed by U.S. Allies and Partners*

This rule expands the scope of the Russian Industry Sector Sanctions by adding additional items to supplement no. 4 to part 746 that will require a license under § 746.5(a)(1)(ii) and to supplement no. 6 to part 746 that will require a license under § 746.5(a)(1)(iii), as described further below. This rule also adds an additional item to supplement no. 7 to part 746 that will require a license under § 746.7 when destined to Iran and under § 746.8 when destined to Russia or Belarus.

1. *Expansion of Russian and Belarusian Industry Sector Sanctions under supplement no. 4 to part 746 to add additional items to align with controls imposed by U.S. partners and allies and make other changes to render the EAR's controls stronger, more effective, and easier to understand.*

This rule expands supplement no. 4 to part 746—Russian and Belarusian Industry Sector Sanctions. Specifically, this rule adds 1,224 additional HTS-6 Code entries corresponding to 1,224 types of industrial items to supplement no. 4; consequently, these items will now require a license for export or reexport to or transfer within Russia or Belarus under § 746.5(a)(1)(ii). The restrictions on these 1,224 groups of industrial items are intended to further undermine the Russian and Belarusian industrial bases and their ability to continue to support Russia's military aggression in Ukraine. The items added include a variety of electronics, instruments, and advanced fibers for the reinforcement of composite materials, including carbon fibers. The complete list of 1,224 new HTS-6 Codes this rule adds to supplement no. 4 are identified in amendatory instruction 11.d.

Items controlled through amendments made in this rule were identified based on a review of public and non-public information regarding which items Russia seeks to further its war against Ukraine, an evaluation of areas in which U.S. trade has continued to provide an economic benefit to Russia, and an assessment of how the United States could better align with its allies and partners to directly or indirectly degrade Russia's war effort. Notably, with this rule, BIS will be controlling three entire harmonized system chapters in supplement no. 4 to part 746 of the EAR. Specifically, this rule will adopt controls on items described in all of the HTS-6 codes found in Chapters 84, 85,

and 90 of the harmonized system schedule. Through such comprehensive controls, BIS intends to cut off Russia's access to any items of potential military significance within these chapters and also expand the economic impact of controls denying Russia additional resources it needs to continue waging war. In addition, adopting such comprehensive controls simplifies compliance decisions for persons trading in items that are listed in these three chapters, because all of the items listed in them now require a license. Although comprehensive in scope, BIS will generally review license applications for certain items that are predominantly agricultural or medical in nature on a case-by-case basis, consistent with the pre-existing exceptions to the policy of denial described in §§ 746.5 and 746.8 of the EAR.

Also in supplement no. 4 to part 746, as a conforming change, this rule adds one sentence at the end of paragraph (a) in the introductory text to identify 131 HTS-6 Codes (590500, 840710, 840721, 840729, 840731, 840732, 840733, 840734, 840790, 840810, 840820, 840890, 840910, 840991, 840999, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841229, 841290, 841451, 841459, 841460, 841510, 841810, 841821, 841829, 841830, 841840, 841981, 842211, 842310, 842860, 843139, 844312, 844331, 844332, 844339, 845011, 845012, 845019, 845121, 845210, 847010, 847021, 847029, 847030, 847130, 847141, 847149, 847150, 847160, 847170, 847180, 847190, 847290, 847960, 848310, 848320, 848330, 848340, 848350, 848360, 848390, 850811, 850819, 850860, 850980, 851110, 851120, 851130, 851140, 851150, 851180, 851190, 851220, 851230, 851240, 851631, 851650, 851660, 851671, 851672, 851679, 851711, 851713, 851718, 851761, 851762, 851769, 851920, 851930, 851981, 851989, 852110, 852190, 852691, 852712, 852713, 852719, 852721, 852729, 852791, 852792, 852799, 852871, 852872, 852910, 853110, 854370, 854430, 870310, 870321, 870322, 870323, 870324, 870331, 870332, 870333, 870340, 870350, 870360, 870370, 870380, 870390, and 902000) that are listed in both this supplement and in supplement no. 5 to part 746. This sentence is added to alert exporters, reexporters, and transferors that they must comply with the license requirements under both §§ 746.5(a)(1)(ii) and 746.10, as

applicable, in connection with items identified under these 131 HTS-6 Codes.

In supplement no. 2 to part 746—Russian and Belarusian Industry Sector Sanction List Pursuant to § 746.5(a)(1)(i), under the last sentence of paragraph (a), and in supplement no. 4 to part 746, as a conforming change to the addition of seven HTS-6 Codes 730424, 731100, 761300, 841382, 841392, 843143, and 870520 to supplement no. 4 to part 746, this rule adds these seven HTS-6 Codes to the sentence in each of these supplements that identifies the HTS-6 codes that are listed in both supplements no. 2 and no. 4 to part 746. This sentence alerts exporters, reexporters, and transferors that they must comply with the license requirements under both § 746.5(a)(1)(i) and (ii) as applicable.

BIS estimates these changes to supplement no. 4 to part 746 will result in an additional 125 license applications submitted to BIS annually.

2. *Expansion of Russian and Belarusian Industry Sector Sanctions under supplement no. 6 to part 746 to add additional items to align with controls imposed by U.S. partners and allies and make other changes to render the EAR's controls stronger, more effective, and easier to understand.*

In supplement no. 6 to part 746, this rule expands the list of items that require a license under § 746.5(a)(1)(iii) to better align these Russian and Belarusian Industry Sector Sanctions with the U.S. allies' and partners' controls. This rule also makes certain clarifying changes to facilitate understanding of the controls. Specifically, this rule makes the following changes to supplement no. 6 to part 746:

a. Under the introductory text to the supplement, as a conforming change with the addition of chemicals to new paragraphs (a)(42) through (45) described in section 2.b, this rule revises the introductory text of supplement no. 6 to part 746 under the second sentence and last sentence to add the phrase "or other" before the reference to activities of concern. The additional chemicals added by this rule are not of concern for chemical and biological weapons production capabilities, so adding "or other" is intended to reflect a broadening of the scope of supplement no. 6 to part 746. The chemicals this rule adds to new paragraphs (a)(42) through (45) were added to this supplement, as opposed to supplement no. 4 to part 746, which identifies items by HTS-6 Codes to reflect BIS's position that it is more appropriate to identify these chemicals by their CAS numbers, which also

facilitates compliance because industry typically identifies these chemicals by CAS numbers.

b. Under paragraph (a), this rule expands the scope by adding new paragraphs (a)(42) ‘Lithium chloride (CAS 7447–41–8),’ (a)(43) ‘Lithium chloride hydrate (CAS 85144–11–2),’ (a)(44) ‘Lithium chloride monohydrate (CAS 16712–20–2),’ and (a)(45) ‘Lithium carbonate (CAS 554–13–2)’ as additional chemicals subject to control under the EAR to align with controls imposed by U.S. allies and partners on the same chemicals. As conforming changes to the addition of paragraphs (a)(42) through (45), this rule revises paragraph (a)(40) to remove the word “or” and revises paragraph (a)(41) to remove a period and add a semi-colon in its place.

c. Under paragraph (e), this rule moves the position of the word “or,” so it is properly positioned in the list of items being described.

d. Under paragraph (f), this rule makes the following changes:

Under paragraph (f), this rule revises the heading and introductory text of paragraph (f) (Equipment) and paragraph (f)(3) to add the text “and consumable “materials.”” This rule also revises Note 6 to paragraph (f) to add the text “and “materials.”” Prior to this rule, BIS already interpreted paragraph (f) to include consumables, but these changes clarify that regardless of whether a consumable is considered “equipment” or a “material” under the EAR, it is controlled under paragraph (f).

BIS estimates these changes to supplement no. 6 to part 746 will result in an additional 25 license applications submitted to BIS annually.

3. *Expansion of Items that Require a License Under § 746.7 When Destined to Iran and Under § 746.8 When Destined to Russia or Belarus* under supplement no. 7 to part 746 to align with controls imposed by U.S. partners and allies and to make other changes to render the EAR’s controls stronger, more effective, and easier to understand.

In supplement no. 7 to part 746—Items That Require a License Under § 746.7 When Destined to Iran and Under § 746.8 When Destined to Russia or Belarus, this rule expands the list of items that require a license to address an inadvertent omission in the Iran UAVs rule that became effective February 24, 2023. Specifically, this rule adds one additional HTS-6 Code entry corresponding to one industrial item to supplement no. 7; consequently, this item will now require a license for export or reexport to Iran under § 746.7(a)(1)(ii). The restrictions on this

industrial item are intended to further undermine Iran’s ability to support the Russian and Belarusian industrial bases and their ability to continue to support Russia’s military aggression in Ukraine. The items added under this entry include a variety of electrical parts of machinery or apparatus, NESOI. The new HTS-6 Code that this rule adds to supplement no. 7 is as follows: 854800.

BIS estimates this change to supplement no. 7 to part 746 will result in an additional five license applications submitted to BIS annually.

4. *Expansion of the Russia/Belarus FDP rule to add the temporarily occupied Crimea region of Ukraine and conforming EAR changes.*

a. In § 734.9(f) (Russia/Belarus FDP rule), this rule expands the destination scope to add the temporarily occupied Crimea region of Ukraine. This expansion is made to strengthen the EAR’s controls for the temporarily occupied Crimea region of Ukraine, thereby making it more difficult for items to be procured for Russia’s use in Crimea in support of its ongoing military aggression in Ukraine. This rule effectuates this policy objective by adding the temporarily occupied Crimea region of Ukraine to the heading of paragraph (f). With this addition, the FDP rule that had applied to Russia and Belarus will be renamed as the Russia/Belarus/temporarily occupied Crimea region of Ukraine FDP rule. This rule also revises the paragraph (f)(1) heading to add the temporarily occupied Crimea region of Ukraine. This rule also makes a conforming change by revising paragraph (f)(2) (Destination scope of the Russia/Belarus FDP rule) to add the temporarily occupied Crimea region of Ukraine.

b. *Revision to temporarily occupied Crimea region of Ukraine license requirements to add a license requirement based upon the Russia/Belarus/temporarily occupied Crimea region of Ukraine FDP rule and add an exclusion for supplement no. 3 to part 746.* In § 746.6 Temporarily Occupied Crimea Region of Ukraine and Covered Regions of Ukraine, this rule revises the license requirements currently set forth under paragraph (a)(1) (*General prohibition.—Temporarily occupied Crimea region of Ukraine*) by redesignating that paragraph as new paragraph (a)(1)(i) and by adding a new paragraph (a)(1)(ii) that will impose a license requirement to reexport, export from abroad, or transfer (in-country) to any destination any foreign-produced item subject to the EAR under the Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule described in § 734.9(f) of the EAR. This

rule also adds a new paragraph (a)(4) (Exclusion from license requirements under paragraph (a)(1)(ii) of this section) that specifies the same type of license requirement exclusion set forth in § 746.8(a)(4) for the countries listed in supplement no. 3 to part 746 that have committed to implementing substantially similar export controls under their domestic laws on Russia and Belarus. Exports or reexports from the countries described in this supplement No. 3 to part 746 or transfers (in-country) within Russia, Belarus, Iran, and the temporarily occupied Crimea region of Ukraine are not subject to the license requirements described in § 746.6(a)(1)(ii), unless a limit to the exclusion is described in the Scope column in supplement no. 3 to this part.

c. *Other conforming changes related to the addition of the temporarily occupied Crimea region of Ukraine to the Russia/Belarus FDP rule.*

This rule revises § 746.8(a)(2) (Foreign-produced “direct product” items subject to the EAR under Russia and Belarus foreign “direct product” (FDP rule)) to add a reference to the temporarily occupied Crimea region of Ukraine. This rule also revises § 746.8(a)(4) (Exclusion from license requirements under paragraphs (a)(2) and (3) of this section) to add a reference to the temporarily occupied Crimea region of Ukraine.

In supplement no. 3 to part 746—Countries Excluded From Certain License Requirements of §§ 746.7 and 746.8, this rule revises the heading and the first sentence of the introductory text of the supplement to add a reference to the temporarily occupied Crimea region of Ukraine and to § 746.6 (a)(4).

In supplement no. 7 to part 746—Items That Require a License Under § 746.7 When Destined to Iran and Under § 746.8 When Destined to Russia or Belarus, this rule revises the heading of the supplement to add the phrase ‘and Under § 746.6 When Destined to the Temporarily Occupied Crimea region of Ukraine’ to specify that these additional license requirements apply to the items identified in the supplement. This rule also revises the second sentence of the introductory text of the supplement to reflect the expansion of the Russia/Belarus FDP rule to apply to the temporarily occupied Crimea region of Ukraine as well. This rule also revises the first sentence of paragraph (b) to add a reference to the Russia/Belarus/Temporarily Occupied Crimea region of Ukraine FDP license requirements for the temporarily occupied Crimea region

of Ukraine that are specified under § 746.6(a)(1)(ii).

BIS estimates this change to supplement no. 7 to part 746 will result in an additional five license applications submitted to BIS annually.

#### *B. Corrections and Clarifications to Existing Controls on Russia and Belarus*

Some of the same EAR provisions discussed above in Section A with respect to the additional controls being imposed on Russia, Belarus, and Iran are also discussed here because this rule makes separate corrections and clarifications with respect to those provisions. The regulatory revisions described under *Section B. Corrections and clarifications to existing controls on Russia and Belarus* include:

- Clarification that U.S.-origin controlled content that meets the criteria in new § 746.5(a)(3) is also excluded from *de minimis* calculations when identifying controlled U.S.-origin content;
- Conforming change clarifying that deemed exports and deemed reexports are excluded from license requirements under § 746.5(a)(1)(i) through (iii) for consistency with the deemed export and deemed reexport exclusion from the license requirements set forth in § 746.8(a)(1);
- Clarifications to BIS licensing policy and the scope of existing licenses that were issued prior to additional HTS-6 Codes and items being added or that will be added to supplements nos. 2, 4, and 6 to part 746 by this rule or in subsequent rules;
- Conforming change to add License Exception AVS eligibility to § 746.5(c)(3) for consistency with § 746.8(c)(5).
- Addition of ECCN 5A991 to the exclusion that applies to items controlled under ECCNs 5A992 or 5D992 under §§ 746.8 and 746.10(a)(1);
- Clarifying change to supplement no. 4 to part 746 in areas of the table that mention parts related to one or more numerical headings; and
- Removal of Schedule B and Schedule B Description and addition of HTS-6 Codes under supplement no. 5 to part 746 for consistency with other supplements related to the EAR's Russian and Belarusian Industry Sector Sanctions.

BIS anticipates that the changes discussed in Section B will not result in the submission of any additional license applications to BIS.

1. *Clarification that U.S.-origin controlled content that meets the criteria in new § 746.5(a)(3) is also excluded from de minimis calculations*

*when identifying controlled U.S.-origin content.*

In § 746.5 (Russian and Belarusian Industry Sector Sanctions), this rule adds a new paragraph (a)(3) (Exclusion from scope of U.S.-origin controlled content under paragraphs (a)(1)(i) through (iii) of this section). This addition clarifies that the same *de minimis* exclusion specified in § 746.8(a)(5) applies to the items identified in supplements nos. 2, 4, and 6 for the countries identified in supplement no. 3 to part 746 (Countries excluded from certain requirements set forth in §§ 746.7 and 746.8).

As a conforming change to the correction described above to § 746.5 that is reflected by the addition of paragraph (a)(3), this final rule revises supplement no. 2 to part 734—Guidelines for *De Minimis* Rules, by revising the third sentence of paragraph (a)(1), which specifies that exporters must adhere to the license requirements in part 746 to identify U.S.-origin controlled content for *de minimis* purposes (excluding U.S.-origin content that meets the criteria in §§ 746.7(a)(1)(v) or 746.8(a)(5)). This final rule revises this parenthetical phrase to specify that U.S.-origin controlled content that meets the criteria in § 746.5(a)(3) is also excluded from *de minimis* calculations when identifying controlled U.S.-origin content.

2. *Conforming change to clarify that deemed exports and deemed reexports are excluded from license requirements under § 746.5(a)(1)(i) through (iii) for consistency with the deemed export and deemed reexport exclusion from license requirements under § 746.8(a)(1).*

In § 746.5, as a clarifying change, this rule revises paragraph (a) (License requirements) to add introductory text to specify that the license requirements under paragraphs (a)(1)(i) through (iii) of this section exclude deemed exports and deemed reexports and adds a new Note 1 to paragraph (a)(1) to clarify that this deemed export and deemed reexport exclusion is only applicable to the license requirements set forth in § 746.5(a)(1)(i) through (iii). This correction is made for consistency with the deemed export and deemed reexport exclusion under § 746.8, which has the same deemed export and deemed reexport exclusion from the license requirements under § 746.8(a)(1).

3. *Conforming change to add License Exception AVS eligibility to § 746.5(c)(3) for consistency with § 746.8(c)(5).*

In § 746.5, this rule adds a new paragraph (c)(3) to specify that License Exception AVS, excluding any aircraft registered in, owned or controlled by, or

under charter or lease by Russia or Belarus or a national of Russia or Belarus (§ 740.15(a) and (b) of the EAR), is available as a license exception under § 746.5. This conforming change is made for consistency with the License Exception AVS eligibility under § 746.8(c)(5).

4. *Clarifications to BIS licensing policy and the scope of licenses that were issued prior to the HTS-6 Codes and other items being added or that will be added to EAR supplements no. 2, 4, and 6 to part 746 by this rule or in subsequent rules.*

a. *Addition of case-by-case license review policy for replacement licenses needed as a result of additional HTS-6 Codes added to supplements nos. 2 or 4 to part 746 or items added to supplement no. 6 to part 746.* Under the paragraph (b) Licensing policy paragraphs set forth in §§ 746.5, 746.8, 746.10, respectively, this rule revises the second sentence to add text to clarify that the case-by-case license review policy also applies to replacement licenses for exports and reexports to and transfers within Russia and Belarus of items described in HTS-6 Codes that were added to the EAR after the validation date of the license. This rule also revises all of §§ 746.5(b)(1) and (2) and 746.8(b) to move the case-by-case licensing policies into their own paragraphs to improve readability and comprehension. This rule also adds a cross reference under paragraph (b) Licensing policy to alert transferors and reexporters to consult § 750.7(c)(1)(xi) for the divestiture of items within Russia or Belarus or their transfer within Russia or Belarus for the purpose of reexporting such items from Russia or Belarus. For purposes of § 750.7(c)(1)(xi), divestiture means the action or process of selling off subsidiary business interests or investments involving items subject to the EAR.

b. *Addition of new non-material change to § 750.7(c)(1)(xi) for certain license applications for the divestiture of items within Russia or Belarus or their transfer within Russia or Belarus for the purpose of reexporting such items from Russia or Belarus.* This rule also adds under § 750.7 a new paragraph (c)(1)(xi) regarding non-material changes to BIS licenses. Specifically, it adds a new paragraph (c)(1)(xi) to specify that the addition of a new HTS-6 Code identified under supplements nos. 2, 4, or 5 to part 746 or of an item identified under supplement no. 6 to part 746 for an export or reexport to or transfer within Russia or Belarus does not require a replacement license provided the criteria under paragraphs (c)(1)(xi)(A)



through (D) are met. The criteria under paragraph (c)(1)(xi)(A) require that the end use of the BIS license is for the divestiture of items within Russia or Belarus or their transfer within Russia or Belarus for the purpose of reexporting such items from Russia or Belarus. The criteria under paragraph (c)(1)(xi)(B) require that the items are identified under new HTS-6 Codes under supplements nos. 2, 4, or 5 to part 746 or are identified under supplement no. 6 to part 746 in paragraphs that were added to the EAR after the validation date of the applicable BIS license. The criterion under paragraph (c)(1)(xi)(C) requires that the BIS license has not yet expired. Lastly, the criteria under paragraph (c)(1)(xi)(D) require that the export, reexport, or in-country transfer of items covered by these additional HTS-6 Codes under supplements nos. 2, 4, or 5 to part 746 or of items identified under supplement no. 6 to part 746 will not exceed the shipping tolerance of the original license or the number of units authorized under the original license.

5. *Addition of ECCN 5A991 to the exclusion for items controlled under ECCNs 5A992 or 5D992 under §§ 746.8 and 746.10(a)(1).*

In §§ 746.8 (Sanctions against Russia and Belarus) and 746.10 ('Luxury goods' sanctions against Russia and Belarus and Russian and Belarusian oligarchs and malign actors), this rule adds ECCN 5A991 to the introductory text to paragraph (a) to apply the exclusion for ECCNs 5A992 or 5D992 under § 746.8(a) introductory text and 'luxury goods' sanctions under § 746.10(a)(1) to items classified under ECCN 5A991. ECCN 5A991 is added to the exclusion text for policy consistency because 5A991 commodities are used in similar end uses as 5A992 and 5D992 commodities and software by the end users identified in the exclusion. Prior to this rule, in certain cases, the lack of a corresponding exclusion for 5A991 commodities undermined the effectiveness of the exclusion for 5A992 and 5D992, in particular when these types of commodities and software were needed at the same time or for the same end use by an eligible entity.

In addition to adding ECCN 5A991, this rule revises the first sentence of the introductory text to paragraph (a) of §§ 746.8 and 746.10 to simplify the text to make it easier to read and understand.

6. *Clarifying change to supplement no. 4 to part 746 when the supplement's table mentions parts related to one or more numerical headings.*

In supplement no. 4 to part 746, as a clarifying change, this rule adds two sentences at the end of paragraph (b) in

the introductory text of the supplement to clarify that when a description in the table mentions parts related to one or more numerical headings, parts related to any HS codes that begin with those digits are covered. This rule also adds an application example to facilitate understanding.

7. *Removal of Schedule B and Schedule B Description and addition of HTS-6 Codes under supplement no. 5 to part 746 for consistency with other supplements under the Russian and Belarusian Industry Security Sanctions.*

a. *Removal of Schedule B and Schedule B Description columns under supplement no. 5 to part 746 to facilitate understanding of the supplement's scope and to align the controls with those imposed by U.S. allies and partners.* In supplement no. 5 to part 746—'Luxury Goods' Sanctions for Russia and Belarus Pursuant to § 746.10(a)(1) and (2), this rule revises the table to replace the columns for Schedule B and Schedule B Description with columns for HTS Code and HTS Description columns. With these changes, the supplement will now utilize an item's HTS-6 Code and the HTS Description, instead of the Schedule B and Schedule B Description. This change aligns the underlying controls with those of U.S. allies and partners who generally use HS-6 Codes and HS Descriptions equivalent to the HTS-6 Codes and HTS Descriptions used under the U.S. Harmonized Tariff Schedule. Because the HS-6 Codes and HS Descriptions are recognized and used internationally, these changes will facilitate alignment of these EAR controls with those of U.S. allies and partners. This rule also adds the phrase "or greater" after the dollar value per unit wholesale price in the U.S. in all instances in which such dollar values are referenced in the HTS Description column. This change clarifies that the license requirements for items described in the applicable entries apply to the dollar value referenced and to amounts greater than the specified dollar value per unit wholesale price in the U.S.

b. *Clarifications to supplement no. 5 to part 746 introductory text to specify how the HTS-6 Codes relate to other information in the table, as well as to content referring to HTS Codes at the 8 and 10 digit level.*

This rule revises paragraph (b) under supplement no. 5 to part 746's introductory text to clarify that that HTS Description is included as a column heading in the table to assist exporters with their AES filing responsibilities, as well as to provide them with clarity regarding the types of items that fall under specific HTS-6 Codes. This rule

also adds a sentence to specify that the HTS-6 Code governs when determining the license requirements that apply to the item. This rule adds a new sentence to paragraph (b) to clarify that the license requirements extend to HTS Codes at the 8 and 10 digit level when those HTS-8 and HTS-10 codes begin with the specified HTS-6 Codes as their first 6 numbers. This text is intended to prevent an exporter from identifying an item at the 8 or 10 digit level and consequently failing to determine that a license is required, either due to a misunderstanding of these license requirements, or as a means to evade these controls. If the 8 or 10 digit code for the item begins with the six numbers of one of the HTS-6 Codes in the table, the item will require a license under § 746.10(a)(1) and (2). Similar to the clarification described above to supplement no. 4 to part 746, this rule adds two sentences at the end of paragraph (b) in the introductory text of supplement no. 5 to part 746 to clarify that when a description in the table mentions parts that may be described in one or more HTS codes, this applies to parts related to any HS codes that begin with the digits in the range specified in the table.

c. *Addition of cross reference for HTS-6 Codes listed under both supplements nos. 5 and 4 to part 746.* This rule, as a conforming change, revises the last sentence in the introductory text to the supplement to remove the reference to Schedule B numbers and add text specifying that HTS-6 Codes 590500, 840710, 840721, 840729, 840731, 840732, 840733, 840734, 840790, 840810, 840820, 840890, 840910, 840991, 840999, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841229, 841290, 841451, 841459, 841460, 841510, 841810, 841821, 841829, 841830, 841840, 841981, 842211, 842310, 842860, 843139, 844312, 844331, 844332, 844339, 845011, 845012, 845019, 845121, 845210, 847010, 847021, 847029, 847030, 847130, 847141, 847149, 847150, 847160, 847170, 847180, 847190, 847290, 847960, 848310, 848320, 848330, 848340, 848350, 848360, 848390, 850811, 850819, 850860, 850980, 851110, 851120, 851130, 851140, 851150, 851180, 851190, 851220, 851230, 851240, 851631, 851650, 851660, 851671, 851672, 851679, 851711, 851713, 851718, 851761, 851762, 851769, 851920, 851930, 851981, 851989, 852110, 852190, 852691, 852712, 852713, 852719, 852721, 852729, 852791, 852792, 852799, 852871, 852872, 852910,

853110, 854370, 854430, 870310, 870321, 870322, 870323, 870324, 870331, 870332, 870333, 870340, 870350, 870360, 870370, 870380, 870390, and 902000, are listed in both supplement no. 5 and supplement no. 4 to part 746. This cross-reference alerts exporters, reexporters, and transferors that these items are subject to the license requirements under both §§ 746.5(a)(1)(ii) and 746.10 as applicable.

d. *Removal of the per unit wholesale price exclusion text for any HTS-6 Code in supplement no. 5 to part 746 that is also listed in supplement no. 4 to part 746.*

This rule removes the per unit wholesale price in the U.S. exclusion text for the 107 HTS-6 Codes (590500, 840710, 840721, 840729, 840731, 840732, 840733, 840734, 840790, 840810, 840820, 840820, 840890, 840910, 840991, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841290, 841451, 841459, 841460, 841510, 841810, 841821, 841829, 841830, 841840, 841981, 842310, 843139, 844312, 844331, 844332, 844339, 845011, 845012, 845019, 845121, 845210, 847010, 847021, 847030, 847130, 847141, 847149, 847160, 847170, 847190, 847290, 847960, 848310, 848320, 848330, 848340, 848350, 848360, 848390, 850811, 850819, 850860, 851110, 851120, 851130, 851140, 851150, 851180, 851190, 851220, 851240, 851660, 851679, 851711, 851713, 851718, 852110, 852190, 852691, 852719, 852721, 852729, 852791, 852792, 852799, 852871, 852910, 853110, 854430, 870310, 870321, 870322, 870323, 870324, 870331, 870332, 870333, 870340, 870350, 870360, 870370, 870380, 870390, and 902000) that are listed in both supplement no. 4 and supplement no. 5 to part 746. This rule makes this clarifying change because the license requirements imposed under §§ 746.5(a)(1)(ii) do not include a per unit wholesale price in the U.S. exclusion. Consequently, the exclusion for these entries in supplement no. 5 to part 746 applies only to the worldwide license requirement for ‘luxury goods’ destined for Russian and Belarusian oligarch and malign actors that is specified in § 746.10(a)(2), when the export, reexport, or transfer is not made to or within Russia or Belarus. BIS is removing the per unit wholesale price in the U.S. exclusion text from supplement no. 5 to part 746 for these 107 HTS-6 Codes identified under both supplements to better ensure compliance.

#### *Savings Clause*

For the changes being made in this final rule, shipments of items removed from eligibility for a License Exception or export, reexport, or transfer (in-country) without a license (NLR) as a result of this regulatory action that were en route aboard a carrier to a port of export, reexport, or transfer (in-country), on May 19, 2023, pursuant to actual orders for export, reexport, or transfer (in-country) to or within a foreign destination, may proceed to that destination under the previous eligibility for a License Exception or export, reexport, or transfer (in-country) without a license (NLR), provided the export, reexport, or transfer (in-country) is completed no later than on June 20, 2023.

#### **Export Control Reform Act of 2018**

On August 13, 2018, the President signed into law the John S. McCain National Defense Authorization Act for Fiscal Year 2019, which included the Export Control Reform Act of 2018 (ECRA) (codified, as amended, at 50 U.S.C. 4801–4852). ECRA provides the legal basis for BIS’s principal authorities and serves as the authority under which BIS issues this rule. To the extent it applies to certain activities that are the subject of this rule, the Trade Sanctions Reform and Export Enhancement Act of 2000 (TSRA) (codified, as amended, at 22 U.S.C. 7201–7211) also serves as authority for this rule.

#### **Rulemaking Requirements**

1. This final rule is not a “significant regulatory action” because it “pertain[s]” to a “military or foreign affairs function of the United States” under sec. 3(d)(2) of Executive Order 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number.

This rule involves the following OMB-approved collections of information subject to the PRA:

- 0694–0088, “Multi-Purpose Application,” which carries a burden hour estimate of 29.4 minutes for a manual or electronic submission;
- 0694–0096 “Five Year Records Retention Period,” which carries a burden hour estimate of less than 1 minute; and

- 0607–0152 “Automated Export System (AES) Program,” which carries a burden hour estimate of 3 minutes per electronic submission.

BIS estimates that these new controls on Russia, Belarus, and the temporarily occupied Crimea region of Ukraine under the EAR will result in an increase of 160 license applications submitted annually to BIS. However, the additional burden falls within the existing estimates currently associated with these control numbers. Additional information regarding these collections of information—including all background materials—can be found at <https://www.reginfo.gov/public/do/PRAMain> by using the search function to enter either the title of the collection or the OMB Control Number.

3. This rule does not contain policies with federalism implications as that term is defined in Executive Order 13132.

4. Pursuant to section 1762 of the Export Control Reform Act of 2018 (50 U.S.C. 4821) (ECRA), this action is exempt from the Administrative Procedure Act (APA) (5 U.S.C. 553) requirements for notice of proposed rulemaking, opportunity for public participation, and delay in effective date. While section 1762 of ECRA provides sufficient authority for such an exemption, this action is also independently exempt from these APA requirements because it involves a military or foreign affairs function of the United States (5 U.S.C. 553(a)(1)).

5. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule by 5 U.S.C. 553, or by any other law, the analytical requirements of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, are not applicable. Accordingly, no regulatory flexibility analysis is required, and none has been prepared.

#### **List of Subjects**

##### *15 CFR Part 734*

Administrative practice and procedure, Exports, Inventions and patents, Research, Science and technology.

##### *15 CFR Part 746*

Exports, Reporting and recordkeeping requirements.

##### *15 CFR Part 750*

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, parts 734, 746, and 750 of the Export Administration Regulations (15

CFR parts 730 through 774) are amended as follows:

**PART 734—SCOPE OF THE EXPORT ADMINISTRATION REGULATIONS**

■ 1. The authority citation for 15 CFR part 734 continues to read as follows:

**Authority:** 50 U.S.C. 4801–4852; 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 13020, 61 FR 54079, 3 CFR, 1996 Comp., p. 219; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13637, 78 FR 16129, 3 CFR, 2014 Comp., p. 223; Notice of November 8, 2022, 87 FR 68015 (November 10, 2022).

■ 2. Section 734.9 is amended by revising the paragraphs (f) introductory text heading and (f)(1) heading and revising paragraph (f)(2) to read as follows:

**§ 734.9 Foreign-Direct Product (FDP) Rules.**

\* \* \* \* \*

(f) *Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule.* \* \* \*

(1) *Product scope of Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule.* \* \* \*

(2) *Destination scope of the Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule.* A foreign-produced item meets the destination scope of this paragraph (f)(2) if there is “knowledge” that the foreign-produced item is destined to Russia, Belarus, or the temporarily occupied Crimea region of Ukraine or will be incorporated into or used in the “production” or “development” of any “part,” “component,” or “equipment” specified in any ECCN on the CCL or in supplement no. 6 or 7 to part 746 of the EAR and produced in or destined to Russia, Belarus, or the temporarily occupied Crimea region of Ukraine.

\* \* \* \* \*

■ 3. Supplement no. 2 to part 734 is amended by revising the third sentence of paragraph (a)(1) to read as follows:

**Supplement No. 2 to Part 734—Guidelines for De Minimis Rules**

(a) \* \* \*

(1) \* \* \* For purposes of identifying U.S.-origin controlled content, you should consult the Commerce Country Chart in supplement no. 1 to part 738 of the EAR and controls described in part 746 of the EAR (excluding U.S.-origin content that meets the criteria in §§ 746.5(a)(3), 746.7(a)(1)(v), or 746.8(a)(5)).

\* \* \* \* \*

**PART 746—EMBARGOES AND OTHER SPECIAL CONTROLS**

■ 4. The authority citation for 15 CFR part 746 continues to read as follows:

**Authority:** 50 U.S.C. 4801–4852; 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 287c; Sec 1503, Pub. L. 108–11, 117 Stat. 559; 22 U.S.C. 2151 note; 22 U.S.C. 6004; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; E.O. 12854, 58 FR 36587, 3 CFR, 1993 Comp., p. 614; E.O. 12918, 59 FR 28205, 3 CFR, 1994 Comp., p. 899; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13338, 69 FR 26751, 3 CFR, 2004 Comp., p. 168; Presidential Determination 2003–23, 68 FR 26459, 3 CFR, 2004 Comp., p. 320; Presidential Determination 2007–7, 72 FR 1899, 3 CFR, 2006 Comp., p. 325; Notice of May 9, 2022, 87 FR 28749 (May 10, 2022).

■ 5. Section 746.5 is amended by:

- a. Adding paragraph (a) introductory text, Note 1 to paragraph (a)(1), and paragraph (a)(3);
- b. Revising paragraphs (b)(1) and (2);
- c. Adding note 2 to paragraph (b); and
- d. Adding paragraph (c)(3).

The additions and revisions read as follows:

**§ 746.5 Russian and Belarusian Industry Sector Sanctions.**

(a) \* \* \* For purposes of paragraphs (a)(1)(i) through (iii) of this section, a license is not required for deemed exports and deemed reexports.

\* \* \* \* \*

**Note 1 to paragraph (a)(1):** The exclusion for deemed exports and deemed reexports is limited to the license requirements specified in these paragraphs (a)(1)(i) through (iii). Any deemed export or deemed reexport to a Russian or Belarusian national must be made in accordance with all other applicable EAR license requirements, such as CCL-based license requirements. For example, the release of NS1 controlled technology to a Russian or Belarusian national in the United States or in a third country would require a CCL-based deemed export or deemed reexport license (as applicable). Consequently, authorization (in the form of a deemed export or deemed reexport license, or license exception eligibility) would be required under the EAR notwithstanding the exclusion in this paragraph (a)(1).

\* \* \* \* \*

(3) *Exclusion from scope of U.S.-origin controlled content under paragraph (a)(1)(i) through (iii) of this section.* For purposes of determining U.S.-origin controlled content under supplement no. 2 to part 734 of the EAR when making a *de minimis* calculation for reexports and exports from abroad to Russia or Belarus, the license requirements in paragraph (a)(1)(i) through (iii) of this section are not used to determine controlled U.S.-origin content in a foreign-made item,

provided the criteria in paragraphs (a)(3)(i) and (ii) of this section are met:

- (i) The U.S.-origin content is described in supplement nos. 2, 4, or 6 and is not otherwise excluded from the applicable Scope column in supplement no. 3 to this part; and
- (ii) The foreign made item will be reexported or exported from abroad from a country described in supplement no. 3 to this part.

(b) \* \* \*

(1) Applications for the export, reexport, or transfer (in-country) of any item pursuant to paragraph (a)(1)(i) of this section that requires a license for Russia or Belarus will be reviewed under a policy of denial when for use directly or indirectly for exploration or production from deepwater (greater than 500 feet), Arctic offshore, or shale projects in Russia or Belarus that have the potential to produce oil or gas. The following types of license applications will be reviewed on a case-by-case basis to determine whether the transaction in question would benefit the Russian or Belarusian government or defense sector:

(i) Applications for export, reexport, or transfer (in-country) of items that may be necessary for health and safety reasons;

(ii) Applications for the disposition of items by companies not headquartered in Country Group D:1, D:5, E:1 or E:2 in supplement no. 1 to part 740 that are curtailing or closing all operations in Russia or Belarus;

(iii) Applications for items that are predominantly agricultural or medical in nature; *and*

(iv) Replacement licenses for exports and reexports to and transfers within Russia and Belarus of items described in HTS-6 Codes or items described in supplement no. 6 to part 746 that were added to the EAR and made subject to license requirements after the validation date of the BIS license.

(2) Applications for the export, reexport, or transfer (in-country) of any item pursuant to paragraph (a)(1)(ii) or (iii) of this section that requires a license for Russia or Belarus will be reviewed under a policy of denial. The following types of license applications will be reviewed on a case-by-case basis to determine whether the transaction in question would benefit the Russian or Belarusian government or defense sector:

(i) Applications for export, reexport, or transfer (in-country) of items that may be necessary for health and safety reasons;

(ii) Applications for items that meet humanitarian needs;

(iii) Applications for the disposition of items by companies not headquartered in Country Group D:1, D:5, E:1 or E:2 in supplement no. 1 to part 740 of this chapter that are curtailing or closing all operations in Russia or Belarus;

(iv) Applications for items that are predominantly agricultural or medical in nature; and

(v) replacement licenses for exports and reexports to and transfers within Russia and Belarus to add items described in HTS-6 Codes or items described in supplement no. 6 to part 746 that were added to the EAR after the validation date of the BIS license.

**Note 2 to paragraph (b):** See also § 750.7(c)(1)(xi) of the EAR for the divestiture of items within Russia or Belarus or the transfer of items within Russia or Belarus for the purpose of reexporting such items from Russia or Belarus. For purposes of § 750.7(c)(1)(xi), divestiture means the action or process of selling off subsidiary business interests or investments involving items subject to the EAR.

(c) \* \* \*

(3) License Exception AVS, excluding any aircraft registered in, owned or controlled by, or under charter or lease by Russia or Belarus or a national of Russia or Belarus (§ 740.15(a) and (b) of the EAR).

■ 6. Section 746.6 is amended by revising the section heading and paragraph (a)(1) and adding paragraph (a)(4) to read as follows:

**§ 746.6 Temporarily occupied Crimea region of Ukraine and covered regions of Ukraine.**

\* \* \* \* \*

(a) *License requirements*—(1) *General prohibition—Temporarily Occupied Crimea Region of Ukraine.* (i) A license is required to export or reexport to or transfer within the temporarily occupied Crimea region of Ukraine any item subject to the EAR other than food and medicine designated as EAR99, or ‘software necessary to enable the exchange of personal communications over the Internet’; and

(ii) Except as described in paragraph (a)(4) of this section, a license is required to reexport, export from abroad, or transfer (in-country) to any destination any foreign-produced item subject to the EAR under the Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule described in § 734.9(f) of the EAR.

\* \* \* \* \*

(4) *Exclusion from license requirements under paragraph (a)(1)(ii) of this section.* The countries listed in supplement No. 3 to this part have committed to implementing

substantially similar export controls on Russia and Belarus under their domestic laws. Therefore, exports or reexports from the countries listed in supplement No. 3 to this part or transfers (in-country) within the countries listed in this supplement are not subject to the license requirements described in paragraphs (a)(1)(ii) of this section, unless a limit to the exclusion is described in the Scope column in supplement no. 3 to this part.

\* \* \* \* \*

■ 7. Section 746.8 is amended by:

■ a. Revising paragraph (a) introductory text, paragraphs (a)(2) and (4), and paragraph (b) to read as follows:

**§ 746.8 Sanctions against Russia and Belarus.**

(a) *License requirements.* For purposes of paragraphs (a)(1) and (2) of this section, commodities classified under ECCN 5A991, and commodities and software classified under ECCNs 5A992 or 5D992 that have been ‘classified in accordance with § 740.17’ do not require a license to or within Russia or Belarus for the following civil end-users: wholly-owned U.S. subsidiaries, branches, or sales offices; joint ventures between two or more U.S. companies, including the wholly-owned subsidiaries, branches, or sales offices of such joint ventures; joint ventures between U.S. companies and companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740 of the EAR, including the wholly-owned subsidiaries, branches, or sales offices of such joint ventures; wholly-owned subsidiaries, branches, or sales offices of companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740; or joint ventures between two or more companies headquartered in Country Group A:5 and A:6 in supplement no. 1 to part 740, including the wholly-owned subsidiaries, branches, or sales offices of such joint ventures.

\* \* \* \* \*

(2) *Foreign-produced items subject to the EAR under Russia/Belarus/Temporarily occupied Crimea region of Ukraine foreign “direct product” (FDP) rule.* Except as described in paragraph (a)(4) of this section, a license is required to reexport, export from abroad, or transfer (in-country) to any destination any foreign-produced item subject to the EAR under the Russia/Belarus/Temporarily occupied Crimea region of Ukraine FDP rule described in § 734.9(f) of the EAR.

\* \* \* \* \*

(4) *Exclusion from license requirements under paragraphs (a)(2) and (3) of this section.* The countries listed in supplement No. 3 to this part have committed to implementing substantially similar export controls on Russia, Belarus, and the temporarily occupied Crimea region of Ukraine under their domestic laws. Therefore, exports or reexports from the countries listed in supplement No. 3 to this part or transfers (in-country) within the countries listed in this supplement are not subject to the license requirements described in paragraphs (a)(2) and (3) of this section, unless a limit to the exclusion is described in the Scope column in supplement no. 3 to this part.

\* \* \* \* \*

(b) *Licensing policy.* (1) With limited exceptions, applications for the export, reexport, or transfer (in-country) of any item that requires a license pursuant to the requirements of this section will be reviewed with a policy of denial.

(2) The following types of license applications for licenses required under paragraphs (a)(1) and (2) of this section will be reviewed on a case-by-case basis to determine whether the transaction in question would benefit the Russian or Belarusian government or defense sector:

(i) Applications related to safety of flight;

(ii) Applications related to maritime safety;

(iii) Applications for civil nuclear safety;

(iv) Applications to meet humanitarian needs;

(v) Applications that support government space cooperation;

(vi) Applications for items destined to wholly-owned U.S. subsidiaries, branches, or sales offices, foreign subsidiaries, branches, or sales offices of U.S. companies that are joint ventures with other U.S. companies, joint ventures of U.S. companies with companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740 of the EAR, the wholly-owned subsidiaries, branches, or sales offices of companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740, joint ventures of companies headquartered in Country Groups A:5 and A:6 with other companies headquartered in Country Groups A:5 and A:6;

(vii) Applications for companies headquartered in Country Groups A:5 and A:6 to support civil telecommunications infrastructure;

(viii) Applications for government-to-government activities; applications for

the disposition of items by companies not headquartered in Country Group D:1, D:5, E:1 or E:2 in supplement no. 1 to part 740 that are curtailing or closing all operations in Russia or Belarus; and

(ix) Replacement licenses for exports and reexports to and transfers within Russia and Belarus to add items described in HTS-6 Codes that were added to the EAR after the effective date of the BIS export, reexport, in-country transfer license was issued.

(3) License applications required under paragraph (a)(3) of this section will be reviewed under a policy of denial in all cases.

**Note 3 to paragraph (b):** See also § 750.7(c)(1)(xi) for the divestiture of items within Russia or Belarus or the transfer of items within Russia or Belarus for the purpose of reexporting from Russia or Belarus. For purposes of § 750.7(c)(1)(xi), divestiture means the action or process of selling off subsidiary business interests or investments involving items subject to the EAR.

\* \* \* \* \*

- 8. Section 746.10 is amended by:
  - a. Revising paragraph (a) introductory text;
  - b. Revising the second sentence of paragraph (b) and adding two sentences at the end of paragraph (b).

The revisions read as follows:

**§ 746.10 ‘Luxury Goods’ sanctions against Russia and Belarus and Russian and Belarusian oligarchs and malign actors.**

(a) *License requirements.* For purposes of paragraphs (a)(1) and (2) of this section, commodities classified under ECCN 5A991, and commodities and software classified under ECCNs 5A992 or 5D992 that have been ‘classified in accordance with § 740.17’ do not require a license to or within Russia or Belarus for the following civil end-users: wholly-owned U.S. subsidiaries, branches, or sales offices; joint ventures between two or more U.S. companies, including the wholly-owned subsidiaries, branches, or sales offices of such joint ventures; joint ventures between U.S. companies and companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740 of the EAR, including the wholly-owned subsidiaries, branches, or sales offices of such joint ventures; wholly-owned subsidiaries, branches, or sales offices of companies headquartered in countries from Country Group A:5 and A:6 in supplement no. 1 to part 740; or joint ventures between two or more companies headquartered in Country Group A:5 and A:6 in supplement no. 1 to part 740, including the wholly-owned

subsidiaries, branches, or sales offices of such joint ventures.

\* \* \* \* \*

(b) *Licensing policy.* \* \* \* The following types of license applications will be reviewed on a case-by-case basis to determine whether the transaction in question would benefit the Russian or Belarusian government or defense sector: applications involving items to meet humanitarian needs; applications for the disposition of items by companies not headquartered in Country Group D:1, D:5, E:1 or E:2 in supplement no. 1 to part 740 that are curtailing or closing all operations in Russia or Belarus; and replacement licenses for exports and reexports to and transfers within Russia and Belarus to add items described in HTS-6 Codes that were added to the EAR after the effective validation date of the BIS license. \* \* \* See also § 750.7(c)(1)(xi) for the divestiture of items within Russia or Belarus or the transfer of items within Russia or Belarus for the purpose of reexporting from Russia or Belarus. For purposes of § 750.7(c)(1)(xi), divestiture means the action or process of selling off subsidiary business interests or investments involving items subject to the EAR.

\* \* \* \* \*

- 9. Supplement No. 2 to part 746 is amended by revising the last sentence of paragraph (a) to read as follows:

**Supplement No. 2 to Part 746—Russian and Belarusian Industry Sector Sanctions List Pursuant to § 746.5(a)(1)(i)**

(a) \* \* \* HTS-6 codes 730424, 731100, 761300, 841350, 841360, 841382, 841392, 842139, 843049, 843139, 843143, 847989, and 870520 are listed in both this supplement and supplement no. 4 to this part, so exporters, reexporters, and transferors must comply with the license requirements under both § 746.5(a)(1)(i) and (ii) as applicable.

\* \* \* \* \*

- 10. Supplement No. 3 to part 746 is amended by revising the heading and the first sentence of the introductory text of the supplement to read as follows:

**Supplement No. 3 to Part 746—Countries Excluded from Certain License Requirements of §§ 746.6, 746.7, and 746.8**

Countries listed in this supplement have committed to implementing substantially similar export controls on Russia and Belarus, under their domestic laws and are consequently excluded from certain requirements in §§ 746.6 and 746.8 of the

EAR, as described in §§ 746.6(a)(4) and 746.8(a)(4) and (5). \* \* \*

\* \* \* \* \*

- 11. Supplement No. 4 to part 746 is amended by:
  - a. In paragraph (a) revising the last sentence and adding a new sentence at the end of the paragraph;
  - b. Adding two sentences at the end of paragraph (b); and
  - c. Adding in numerical order the following entries to the table: “250810,” “250830,” “250840,” “250850,” “250860,” “250870,” “250900,” “251200,” “251511,” “251512,” “251520,” “251820,” “251910,” “252010,” “252100,” “252210,” “252220,” “252230,” “252510,” “252520,” “252530,” “252610,” “252620,” “253020,” “281820,” “282110,” “282510,” “282911,” “283539,” “284700,” “320110,” “320120,” “320190,” “320210,” “320290,” “320300,” “320490,” “320500,” “320641,” “320649,” “320710,” “320720,” “320730,” “320740,” “320810,” “320820,” “320890,” “320910,” “320990,” “321000,” “321290,” “321410,” “321490,” “321511,” “321519,” “340311,” “340319,” “340391,” “340399,” “350510,” “350699,” “370120,” “370191,” “370210,” “370231,” “370232,” “370239,” “370241,” “370242,” “370243,” “370244,” “370252,” “370253,” “370254,” “370255,” “370256,” “370296,” “370297,” “370298,” “370310,” “370320,” “370390,” “370500,” “370610,” “370690,” “380120,” “380620,” “380700,” “380910,” “380991,” “380992,” “380993,” “381010,” “381090,” “381111,” “381119,” “381121,” “381129,” “381190,” “381220,” “381300,” “381400,” “381511,” “381512,” “381590,” “381600,” “381700,” “381800,” “381900,” “382000,” “382313,” “382481,” “382484,” “382499,” “382590,” “382600,” “382790,” “390140,” “390220,” “390230,” “390290,” “390319,” “390390,” “390410,” “390450,” “390512,” “390519,” “390521,” “390529,” “390530,” “390591,” “390599,” “390610,” “390690,” “390721,” “390740,” “390770,” “390791,” “390810,” “390890,” “390920,” “390939,” “390940,” “390950,” “391211,” “391290,” “391520,” “391710,” “391723,” “391731,” “391732,” “391733,” “392010,” “392061,” “392069,” “392073,” “392091,” “392119,” “392290,” “392520,” “400211,” “400219,” “400220,” “400231,” “400239,” “400241,” “400249,” “400251,” “400259,”

“400260,” “400270,” “400280,”  
“400291,” “400299,” “400510,”  
“400520,” “400591,” “400599,”  
“400610,” “400821,” “400912,”  
“400941,” “401011,” “401012,”  
“401019,” “401031,” “401032,”  
“401033,” “401034,” “401035,”  
“401036,” “401039,” “401120,”  
“401130,” “401211,” “401212,”  
“401213,” “401219,” “401220,”  
“401290,” “401693,” “440711,”  
“440712,” “440713,” “440714,”  
“440719,” “440721,” “440722,”  
“440723,” “440725,” “440726,”  
“440727,” “440728,” “440729,”  
“440791,” “440792,” “440793,”  
“440794,” “440795,” “440796,”  
“440797,” “440799,” “441113,”  
“441194,” “441210,” “441231,”  
“441233,” “441234,” “441239,”  
“441241,” “441242,” “441249,”  
“441251,” “441252,” “441259,”  
“441291,” “441292,” “441299,”  
“441830,” “441840,” “441879,”  
“450310,” “450390,” “450410,”  
“450490,” “470100,” “470311,”  
“470319,” “470321,” “470329,”  
“470411,” “470419,” “470421,”  
“470429,” “470500,” “470610,”  
“470620,” “470630,” “470691,”  
“470692,” “470693,” “470710,”  
“470720,” “470730,” “470790,”  
“480220,” “480240,” “480258,”  
“480261,” “480411,” “480419,”  
“480421,” “480429,” “480431,”  
“480439,” “480441,” “480442,”  
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 "960891," and "961220".

The additions and revisions read as follows:

**Supplement No. 4 to Part 746—Russian and Belarusian Industry Sector Sanctions pursuant to § 746.5(a)(1)(ii)**

(a) \* \* \* HTS-6 codes 730424, 731100, 761300, 841350, 841360, 841382, 841392, 842139, 843049, 843139, 843143, 847989, and 870520 are listed in both this supplement and supplement no. 2 to this part, so exporters, reexporters, and transferors must comply with the license requirements under both § 746.5(a)(1)(i) and (ii) as applicable. HTS-6 Codes 590500, 840710, 840721, 840729, 840731, 840732, 840733, 840734, 840790, 840810, 840820, 840890, 840910, 840991, 840999, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841299, 841290, 841451, 841459, 841460, 841510, 841810, 841821, 841829, 841830, 841840, 841981, 842211, 842310, 842860, 843139, 844312, 844331, 844332, 844339, 845029, 845031, 845019, 845121, 845210, 847010, 847021, 847029, 847030, 847130, 847141, 847149, 847150, 847160, 847170, 847180, 847190, 847290, 847960, 848310, 848329, 848330, 848340, 848350, 848360, 848390, 850811, 850819, 850860, 850980, 851110, 851120, 851130, 851140, 851150, 851180, 851190, 851220, 851230, 851240, 851631, 851650, 851660, 851671, 851672, 851679, 851711, 851713, 851718, 851761, 851762, 851769, 851920, 851930, 851981, 851989, 852110, 852190, 852691, 852712, 852713, 852719, 852721, 852729, 852791, 852792, 852799, 852871, 852872, 852910, 853110, 854370, 854430, 870310, 870321, 870322, 870323, 870324, 870331, 870332, 870333, 870340, 870350, 870360, 870370, 870380, 870390, and 902000 are listed in both this supplement and supplement no. 5 to this part, so exporters, reexporters, and transferors must comply with the license requirements under both §§ 746.5(a)(1)(ii) and 746.10 as applicable.

(b) \* \* \* When a description mentions parts related to one or more numerical headings, this means parts related to any HS codes that begin with the digits in the range specified. For example, 'headings 8524 to 8528' means any HS code, HTS code, or Schedule B which has 8524, 8525, 8526, 8527, or 8528 as the first four digits.



HTS-6 Code	HTS description
250810	BENTONITE, WHETHER OR NOT CALCINED.
250830	FIRE CLAY, WHETHER OR NOT CALCINED.
250840	CLAYS (EXCLUDING EXPANDED CLAYS), NESOI, INCLUDING COMMON BLUE CLAY AND OTHER BALL CLAYS, WHETHER OR NOT CALCINED.
250850	ANDALUSITE, KYANITE AND SILLIMANITE, WHETHER OR NOT CALCINED.
250860	MULLITE.
250870	CHAMOTTE OR DINAS EARTH.
250900	CHALK.
251200	SILICEOUS FOSSIL MEALS (INCLUDING KIESELGUHR, TRIPOLITE AND DIATOMITE) AND SIMILAR SILICEOUS EARTHS, OF AN APPARENT SPECIFIC GRAVITY OF 1 OR LESS.
251511	MARBLE AND TRAVERTINE, CRUDE OR ROUGHLY TRIMMED.
251512	MARBLE AND TRAVERTINE, MERELY CUT INTO BLOCKS OR SLABS OF RECTANGULAR OR SQUARE SHAPE.
251520	CALCAREOUS MONUMENTAL OR BUILDING STONE, EXCEPT MARBLE AND TRAVERTINE; ALABASTER.
251820	CALCINED DOLOMITE.
251910	NATURAL MAGNESIUM CARBONATE (MAGNESITE).
252010	GYPSUM; ANHYDRITE.
252100	LIMESTONE FLUX; LIMESTONE AND OTHER CALCAREOUS STONE, OF A KIND USED FOR THE MANUFACTURE OF LIME OR CEMENT (OR FOR SOIL IMPROVEMENT).
252210	QUICKLIME.
252220	SLAKED LIME.
252230	HYDRAULIC LIME.
252510	CRUDE MICA AND MICA RIFTED INTO SHEETS OR SPLITTINGS.
252520	MICA POWDER.
252530	MICA WASTE.
252610	NATURAL STEATITE AND TALC, NOT CRUSHED, NOT POWDERED.
252620	NATURAL STEATITE AND TALC, CRUSHED OR POWDERED.
253020	KIESERITE, EPSOM SALTS (NATURAL MAGNESIUM SULFATES).
281820	ALUMINUM OXIDE, EXCEPT ARTIFICIAL CORUNDUM, NESOI.
282110	IRON OXIDES AND HYDROXIDES.
282510	HYDRAZINE AND HYDROXYLAMINE AND THEIR INORGANIC SALTS.
282911	SODIUM CHLORATE.
283539	POLYPHOSPHATES, NESOI.
284700	HYDROGEN PEROXIDE, WHETHER OR NOT SOLIDIFIED WITH UREA.
320110	QUEBRACHO EXTRACT.
320120	WATTLE EXTRACT.
320190	TANNING EXTRACTS OF VEGETABLE ORIGIN, NESOI; TANNINS AND THEIR SALTS, ETHERS, ESTERS AND OTHER DERIVATIVES.
320210	SYNTHETIC ORGANIC TANNING SUBSTANCES.
320290	INORGANIC TANNING SUBSTANCES; TANNING PREPARATIONS; ENZYMATIC PREPARATIONS FOR PRE-TANNING.
320300	COLORING MATTER OF VEGETABLE OR ANIMAL ORIGIN AND PREPARATIONS BASED THEREON.
320490	SYNTHETIC ORGANIC COLORING MATTER, NESOI.
320500	COLOR LAKES; PREPARATIONS BASED ON COLOR LAKES.
320641	ULTRAMARINE AND PREPARATIONS BASED THEREON.
320649	COLORING MATTER OF A KIND USED FOR COLORING ANY MATERIAL OR USED IN THE MANUFACTURE OF COLORING PREPARATIONS (OTHER THAN PAINTS OR ENAMELS), NESOI.
320710	PREPARED PIGMENTS, PREPARED OPACIFIERS, PREPARED COLORS AND SIMILAR PREPARATIONS.
320720	VITRIFIABLE ENAMELS AND GLAZES, ENGObES (SLIPS) AND SIMILAR PREPARATIONS.
320730	LIQUID LUSTRES AND SIMILAR PREPARATIONS.
320740	GLASS FRIT AND OTHER GLASS, IN THE FORM OF POWDER, GRANULES OR FLAKES.
320810	PAINTS AND VARNISHES (INCLUDING ENAMELS AND LACQUERS) BASED ON SYNTHETIC AND OTHER POLYMERS, IN A NONAQUEOUS MEDIUM, BASED ON POLYESTERS.
320820	PAINTS AND VARNISHES (INCLUDING ENAMELS AND LACQUERS) BASED ON SYNTHETIC AND OTHER POLYMERS IN A NONAQUEOUS MEDIUM, BASED ON ACRYLIC OR VINYL POLYMERS.
320890	PAINTS AND VARNISHES (INCLUDING ENAMELS AND LACQUERS) BASED ON SYNTHETIC AND OTHER POLYMERS IN A NONAQUEOUS MEDIUM, NESOI.
320910	PAINTS AND VARNISHES (INCLUDING ENAMELS AND LACQUERS) BASED ON SYNTHETIC AND OTHER POLYMERS IN AN AQUEOUS MEDIUM, BASED ON ACRYLIC OR VINYL POLYMERS.
320990	PAINTS AND VARNISHES (INCLUDING ENAMELS AND LACQUERS) BASED ON SYNTHETIC AND OTHER POLYMERS IN AN AQUEOUS MEDIUM, NESOI.
321000	PAINTS AND VARNISHES (INCLUDING ENAMELS, LACQUERS AND DISTEMPERS); PREPARED WATER PIGMENTS OF A KIND USED FOR FINISHING LEATHER.
321290	PIGMENTS (INCLUDING METALLIC POWDERS AND FLAKES) IN NONAQUEOUS MEDIA FOR PAINT MANUFACTURE; DYES AND COLORS PACKAGED FOR RETAIL SALES.
321410	MASTICS (INCLUDING GLAZIERS' PUTTY, GRAFTING PUTTY, RESIN CEMENTS AND CAULKING COMPOUNDS); PAINTERS' FILLINGS.
321490	NONREFRACTORY SURFACING PREPARATIONS FOR FACADES, INDOOR WALLS, FLOORS, CEILINGS OR THE LIKE.
321511	PRINTING INK, BLACK.
321519	PRINTING INK, OTHER THAN BLACK.
340311	LUBRICATING PREPARATIONS FOR THE TREATMENT OF TEXTILE MATERIALS, LEATHER, FURSKINS OR OTHER MATERIALS, CONTAINING PETROLEUM OR BITUMINOUS MINERAL OILS.
340319	LUBRICATING PREPARATIONS CONTAINING PETROLEUM OILS OR OILS OBTAINED FROM BITUMINOUS MINERALS, NESOI.
340391	LUBRICATING PREPARATIONS FOR THE TREATMENT OF TEXTILE MATERIALS, LEATHER, FUR OR OTHER MATERIALS, NOT CONTAINING PETROLEUM OR BITUMINOUS MINERAL OILS.

HTS-6 Code	HTS description
340399	LUBRICATING PREPARATIONS NOT CONTAINING PETROLEUM OILS OR OILS OBTAINED FROM BITUMINOUS MINERALS, NESOI.
350510	DEXTRINS AND OTHER MODIFIED STARCHES.
350699	PREPARED GLUES AND ADHESIVES, NESOI.
370120	INSTANT PRINT FILM IN THE FLAT.
370191	PHOTOGRAPHIC PLATES AND FLAT FILM (OF MATERIAL OTHER THAN PAPER, PAPERBOARD OR TEXTILES) FOR COLOR PHOTOGRAPHY (POLYCHROME), SENSITIZED, UNEXPOSED.
370210	X-RAY FILM IN ROLLS, SENSITIZED, UNEXPOSED.
370231	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, NOT OVER 105 MM IN WIDTH, FOR COLOR PHOTOGRAPHY (POLYCHROME), SENSITIZED, UNEXPOSED.
370232	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, NOT OVER 105 MM (4.1 IN.) IN WIDTH, WITH SILVER HALIDE EMULSION, SENSITIZED, UNEXPOSED.
370239	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, NOT OVER 105 MM (4.1 IN.) IN WIDTH, NESOI, SENSITIZED, UNEXPOSED.
370241	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, OVER 610 MM IN WIDTH AND OVER 200 M IN LENGTH, FOR COLOR PHOTOGRAPHY, SENSITIZED, UNEXPOSED.
370242	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, OVER 610 MM IN WIDTH AND OVER 200 M IN LENGTH, NESOI, SENSITIZED, UNEXPOSED.
370243	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, OVER 610 MM (24 IN.) IN WIDTH AND NOT OVER 200 M (656 FT.) IN LENGTH, SENSITIZED, UNEXPOSED.
370244	PHOTOGRAPHIC FILM IN ROLLS, NESOI, WITHOUT SPROCKET HOLES, OVER 105 MM (4.1 IN.) BUT NOT OVER 610 MM (24 IN.) IN WIDTH, SENSITIZED, UNEXPOSED.
370252	PHOTOGRAPHIC FILM IN ROLLS WITH PERFORATIONS, FOR COLOR PHOTOGRAPHY (POLYCHROME), NOT OVER 16 MM (0.6 IN.) WIDE, SENSITIZED, UNEXPOSED, ETC.
370253	PHOTOGRAPHIC FILM ROLLS, NESOI, FILM NESOI, FOR COLOR SLIDES, OVER 16 MM, NOT OVER 35 MM WIDE AND NOT OVER 30 M LONG, SENSITIZED, UNEXPOSED.
370254	PHOTOGRAPHIC FILM ROLLS, NESOI, FILM NESOI, FOR COLOR PHOTOGRAPHY NESOI, OVER 16 MM, NOT OVER 35 MM WIDE AND NOT OVER 30 M LONG, SENSITIZED, UNEXPOSED.
370255	PHOTOGRAPHIC FILM ROLLS, NESOI, FILM NESOI, FOR COLOR PHOTOGRAPHY, OVER 16 MM, BUT NOT OVER 35 MM WIDE AND OVER 30 M LONG, SENSITIZED, UNEXPOSED.
370256	PHOTOGRAPHIC FILM ROLLS, NESOI, FILM NESOI, FOR COLOR PHOTOGRAPHY, OVER 35 MM (1.4 IN.) WIDE, SENSITIZED, UNEXPOSED.
370296	PHOTOGRAPHIC FILM OF A WIDTH NOT EXCEEDING 35 MM (1.4 IN.) AND OF A LENGTH NOT EXCEEDING 30 M (98 FT.), MONOCHROME, SENSITIZED, UNEXPOSED, NESOI.
370297	PHOTOGRAPHIC FILM OF A WIDTH NOT EXCEEDING 35 MM (1.4 IN.) AND OF A LENGTH EXCEEDING 30 M (98 FT.), MONOCHROME, SENSITIZED, UNEXPOSED, NESOI.
370298	PHOTOGRAPHIC FILM OF A WIDTH EXCEEDING 35 MM (1.4 IN.), MONOCHROME (BLACK AND WHITE), SENSITIZED, UNEXPOSED, NOT OF PAPER, PAPERBOARD ETC, NESOI.
370310	PHOTOGRAPHIC PAPER, PAPERBOARD AND TEXTILES IN ROLLS, OVER 610 MM (24 IN.) WIDE, SENSITIZED, UNEXPOSED.
370320	PHOTOGRAPHIC PAPER, PAPERBOARD AND TEXTILES, NESOI, FOR COLOR PHOTOGRAPHY (NOT IN ROLLS OVER 610 MM (24 IN.) WIDE), SENSITIZED, UNEXPOSED.
370390	PHOTOGRAPHIC PAPER, PAPERBOARD AND TEXTILES, NESOI, OTHER THAN FOR COLOR PHOTOGRAPHY (NOT IN ROLLS OVER 610 MM (24 IN.) WIDE), SENSITIZED, UNEXPOSED.
370500	PHOTOGRAPHIC PLATES AND FILM, EXPOSED AND DEVELOPED, OTHER THAN CINEMATOGRAPHIC FILM.
370610	MOTION-PICTURE FILM, EXPOSED AND DEVELOPED, 35 MM (1.4 IN.) OR OVER IN WIDTH.
370690	MOTION-PICTURE FILM, EXPOSED AND DEVELOPED, LESS THAN 35 MM (1.4 IN.) IN WIDTH.
380120	COLLOIDAL OR SEMI-COLOIDAL GRAPHITE.
380620	SALTS OF ROSIN OR OF RESIN ACIDS OR OF DERIVATIVES OF ROSIN OR RESIN ACIDS, EXCEPT SALTS OF ROSIN ADDUCTS.
380700	WOOD TAR; WOOD TAR OILS; WOOD CRESOTE; WOOD NAPHTHA; VEGETABLE PITCH; BREWERS' PITCH AND LIKE PRODUCTS BASED ON ROSIN, RESIN ACIDS OR VEGETABLE PITCH.
380910	FINISHING AGENTS, DYE CARRIERS AND DRESSINGS USED IN THE TEXTILE, PAPER ETC. INDUSTRIES, WITH A BASIS OF AMYLACEOUS SUBSTANCES.
380991	FINISHING AGENTS, DYE CARRIERS AND PREPARATIONS NESOI, OF A KIND USED IN THE TEXTILE OR LIKE INDUSTRIES.
380992	FINISHING AGENTS, DYE CARRIERS AND PREPARATIONS NESOI, OF A KIND USED IN THE PAPER OR LIKE INDUSTRIES.
380993	FINISHING AGENTS, DYE CARRIERS AND PREPARATION NESOI, OF A KIND USED IN THE LEATHER OR LIKE INDUSTRIES.
381010	PICKLING PREPARATION FOR METAL SURFACES; SOLDERING, BRAZING OR WELDING POWDERS AND PASTES CONSISTING OF METAL AND OTHER MATERIALS.
381090	FLUXES AND OTHER AUXILIARY PREPARATIONS FOR SOLDERING, BRAZING OR WELDING, NESOI; PREPARED CORES OR COATINGS FOR WELDING ELECTRODES OR RODS.
381111	ANTI-KNOCK PREPARATIONS, BASED ON LEAD COMPOUNDS.
381119	ANTI-KNOCK PREPARATIONS, NESOI.
381121	ADDITIVES FOR LUBRICATING OILS CONTAINING PETROLEUM OILS OR OILS OBTAINED FROM BITUMINOUS MINERALS.
381129	ADDITIVES FOR LUBRICATING OILS, NESOI.
381190	PREPARED ADDITIVES FOR MINERAL OILS (INCLUDING GASOLINE) OR FOR OTHER LIQUIDS USED FOR THE SAME PURPOSE AS MINERAL OILS, NESOI.
381220	COMPOUND PLASTICIZERS FOR RUBBER OR PLASTICS.
381300	PREPARATIONS AND CHARGES FOR FIRE-EXTINGUISHERS; CHARGED FIRE-EXTINGUISHING GRENADES.
381400	ORGANIC COMPOSITE SOLVENTS AND THINNERS, NESOI; PREPARED PAINT OR VARNISH REMOVERS.

HTS-6 Code	HTS description
381511 .....	SUPPORTED CATALYSTS WITH NICKEL OR NICKEL COMPOUNDS AS THE ACTIVE SUBSTANCE.
381512 .....	SUPPORTED CATALYSTS WITH PRECIOUS METAL OR PRECIOUS METAL COMPOUNDS AS THE ACTIVE SUBSTANCE.
	* * * * *
381590 .....	REACTION INITIATORS, REACTION ACCELERATORS AND CATALYTIC PREPARATIONS, NESOI.
381600 .....	REFRACTORY CEMENTS, MORTARS, CONCRETES, AND SIMILAR COMPOSITIONS (EXCEPT OF GRAPHITE OR OTHER CARBON PREPARATIONS), NESOI.
381700 .....	MIXED ALKYL BENZENES AND MIXED ALKYL NAPHTHALENES, OTHER THAN THOSE OF HEADING 2707 OR 2902.
381800 .....	CHEMICAL ELEMENTS DOPED FOR USE IN ELECTRONICS, IN THE FORM OF DISCS, WAFERS OR SIMILAR FORMS; CHEMICAL COMPOUNDS DOPED FOR USE IN ELECTRONICS.
381900 .....	HYDRAULIC BRAKE FLUIDS AND PREPARED LIQUIDS FOR HYDRAULIC TRANSMISSION, WITH LESS THAN 70% (IF ANY) BY WEIGHT OF PETROLEUM OR BITUMINOUS MINERAL OILS.
382000 .....	ANTIFREEZING PREPARATIONS AND PREPARED DEICING FLUIDS.
382313 .....	TALL OIL FATTY ACIDS.
382481 .....	MIXTURES AND PREPARATIONS CONTAINING OXIRANE (ETHYLENE OXIDE).
382484 .....	MIX AND PREPS CONTAINING ALDRIN, CAMPHECHLOR, CHLORDANE, CHLORDECONE, DDT, 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHANES),DIELDRIN, ENDOSULFAN,ETC.
382499 .....	CHEMICAL PRODUCTS AND PREPARATIONS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.; RESIDUAL PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.
382590 .....	WASTE AS SPECIFIED IN CHAPTER 38 NOTES, NESOI.
382600 .....	BIODIESEL AND MIXTURES THEREOF, NOT CONTAINING OR CONTAINING LESS THAN 70% BY WEIGHT OF PETROLEUM OILS OR OILS OBTAINED FROM BITUMINOUS MATERIALS.
382790 .....	ACYCLIC PERHALOGENATED DERIVATIVES, NESOI.
390140 .....	ETHYLENE-ALPHA-OLEFIN COPOLYMERS, HAVING A SPECIFIC GRAVITY OF LESS THAN 0.94.
390220 .....	POLYISOBUTYLENE, IN PRIMARY FORMS.
390230 .....	PROPYLENE COPOLYMERS, IN PRIMARY FORMS.
390290 .....	POLYMERS OF PROPYLENE OR OTHER OLEFINS NESOI, IN PRIMARY FORMS.
390319 .....	POLYSTYRENE NESOI, IN PRIMARY FORMS.
390390 .....	POLYMERS OF STYRENE NESOI, IN PRIMARY FORMS.
390410 .....	POLYVINYL CHLORIDE, NOT MIXED WITH ANY OTHER SUBSTANCES, IN PRIMARY FORMS.
390450 .....	VINYLDENE CHLORIDE POLYMERS, IN PRIMARY FORMS.
390512 .....	POLYMERS OF VINYL ACETATE, IN AQUEOUS DISPERSION.
390519 .....	POLYMERS OF VINYL ACETATE, NOT IN AQUEOUS DISPERSION, IN PRIMARY FORMS.
390521 .....	VINYL ACETATE COPOLYMERS, IN AQUEOUS DISPERSION.
390529 .....	VINYL ACETATE COPOLYMERS, NESOI.
390530 .....	POLYVINYL ALCOHOLS, WHETHER OR NOT CONTAINING UNHYDROLYZED ACETATE GROUPS.
390591 .....	COPOLYMERS OF VINYL ESTERS, IN PRIMARY FORMS, N.E.S.O.I.
390599 .....	VINYL POLYMERS IN PRIMARY FORMS, N.E.S.O.I.
390610 .....	POLYMETHYL METHACRYLATE, IN PRIMARY FORMS.
390690 .....	ACRYLIC POLYMERS NESOI, IN PRIMARY FORMS.
390721 .....	POLYETHERS NESOI, IN PRIMARY FORMS.
390740 .....	POLYCARBONATES, IN PRIMARY FORMS.
390770 .....	POLY(LACTIC) ACID, IN PRIMARY FORMS.
390791 .....	POLYESTERS NESOI, UNSATURATED, IN PRIMARY FORMS.
390810 .....	POLYAMIDE-6,-11,-12,-6,6,-6,9,-6,10 OR -6,12 (NYLON TYPE), IN PRIMARY FORMS.
390890 .....	POLYAMIDES NESOI, IN PRIMARY FORMS.
390920 .....	MELAMINE RESINS, IN PRIMARY FORMS.
390939 .....	AMINO-RESINS, NESOI.
390940 .....	PHENOLIC RESINS, IN PRIMARY FORMS.
390950 .....	POLYURETHANES, IN PRIMARY FORMS.
391211 .....	CELLULOSE ACETATES, NONPLASTICIZED, IN PRIMARY FORMS.
391290 .....	CELLULOSE AND ITS CHEMICAL DERIVATIVES NESOI, IN PRIMARY FORMS.
391520 .....	WASTE, PARINGS AND SCRAP, OF POLYMERS OF STYRENE.
391710 .....	ARTIFICIAL GUTS (SAUSAGE CASING), OF HARDENED PROTEIN OR OF CELLULOSIC PLASTIC MATERIALS.
391723 .....	TUBES, PIPES AND HOSES, RIGID, OF POLYMERS OF VINYL CHLORIDE.
391731 .....	FLEXIBLE TUBES, PIPES AND HOSES, HAVING A MINIMUM BURST PRESSURE OF 27.6 MPA, OF PLASTICS.
391732 .....	TUBES, PIPES AND HOSES NESOI, NOT REINFORCED OR OTHERWISE COMBINED WITH OTHER MATERIALS, OF PLASTICS, WITHOUT FITTINGS.
391733 .....	TUBES, PIPES AND HOSES NESOI, NOT REINFORCED OR OTHERWISE COMBINED WITH OTHER MATERIALS, OF PLASTICS, WITH FITTINGS.
392010 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS, NOT SELF-ADHESIVE, NON-CELLULAR, NOT REINFORCED OR LAMINATED ETC., OF POLYMERS OF ETHYLENE.
392061 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS, NOT SELF-ADHESIVE, NON-CELLULAR, NOT REINFORCED ETC., OF POLYCARBONATES.
392069 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS, NOT SELF-ADHESIVE, NON-CELLULAR, NOT REINFORCED OR LAMINATED ETC., OF POLYESTERS NESOI.
392073 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS, NOT SELF-ADHESIVE, NON-CELLULAR, NOT REINFORCED OR LAMINATED ETC., OF CELLULOSE ACETATE.
392091 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS, NOT SELF-ADHESIVE, NON-CELLULAR, NOT REINFORCED OR LAMINATED ETC., OF POLYVINYL BUTYRAL.
392119 .....	PLATES, SHEETS, FILM, FOIL AND STRIP OF PLASTICS NESOI, CELLULAR PLASTICS NESOI.
392290 .....	BIDETS, LAVATORY PANS, FLUSHING CISTERNS AND SIMILAR SANITARY WARE, OF PLASTICS.
392520 .....	DOORS, WINDOWS AND THEIR FRAMES AND THRESHOLDS FOR DOORS, OF PLASTICS.

HTS-6 Code	HTS description
400211	LATEX OF STYRENE-BUTADIENE RUBBER (SBR) OR CARBOXYLATED STYRENE-BUTADIENE RUBBER (XSBR).
400219	STYRENE-BUTADIENE RUBBER (SBR) OR CARBOXYLATED STYRENE-BUTADIENE RUBBER (XSBR) IN PRIMARY FORMS (EXCEPT LATEX) OR IN PLATES, SHEETS OR STRIP.
400220	BUTADIENE RUBBER (BR) IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400231	ISOBUTENE-ISOPRENE (BUTYL) RUBBER (IIR) IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400239	HALO-ISOBUTENE-ISOPRENE RUBBER (CIIR OR BIIR) IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400241	LATEX OF CHLOROPRENE (CHLOROBUTADIENE) RUBBER (CR).
400249	CHLOROPRENE (CHLOROBUTADIENE) RUBBER (CR) IN PRIMARY FORMS (EXCEPT LATEX) OR IN PLATES, SHEETS OR STRIP.
400251	LATEX OF ACRYLONITRILE-BUTADIENE RUBBER (NBR).
400259	ACRYLONITRILE-BUTADIENE RUBBER (NBR) IN PRIMARY FORMS (EXCEPT LATEX) OR IN PLATES, SHEETS OR STRIP.
400260	ISOPRENE RUBBER (IR) IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400270	ETHYLENE-PROPYLENE-NONCONJUGATED DIENE RUBBER (EPDM) IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400280	MIXTURES OF NATURAL RUBBER OR SIMILAR NATURAL GUMS WITH SYNTHETIC RUBBER AND FACTICE DERIVED FROM OILS, IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400291	LATEX OF SYNTHETIC RUBBER AND FACTICE DERIVED FROM OILS, NESOI.
400299	SYNTHETIC RUBBER AND FACTICE DERIVED FROM OILS, IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP, NESOI.
400510	COMPOUNDED RUBBER, UNVULCANIZED, COMPOUNDED WITH CARBON BLACK OR SILICA, IN PRIMARY FORMS OR IN PLATES, SHEETS OR STRIP.
400520	COMPOUNDED RUBBER, UNVULCANIZED, IN SOLUTION; DISPERSIONS OTHER THAN THOSE COMPOUNDED WITH CARBON BLACK OR SILICA.
400591	COMPOUNDED RUBBER, UNVULCANIZED, IN PLATES, SHEETS, AND STRIP, NESOI.
400599	COMPOUNDED RUBBER, UNVULCANIZED, IN PRIMARY FORMS, NESOI.
400610	CAMEL-BACK STRIPS FOR RETREADING RUBBER TIRES, OF UNVULCANIZED RUBBER.
400821	PLATES, SHEETS AND STRIP OF VULCANIZED RUBBER, EXCEPT HARD RUBBER, OF NONCELLULAR RUBBER.
400912	TUBES, PIPE, AND HOSES, OF VULCANIZED RUBBER, EXC HARD RUBBER, NOT REINFORCED OR OTHERWISE COMBINED WITH OTHER MATERIALS, WITH FITTINGS.
400941	TUBES, PIPES AND HOSES, OF VULCANIZED RUBBER, EXCEPT HARD RUBBER, REINFORCED OR OTHERWISE COMBINED WITH OTHER MATERIALS, NESOI, WITHOUT FITTINGS.
401011	CONVEYOR BELTS OR BELTING REINFORCED ONLY WITH METAL.
401012	CONVEYOR BELTS OR BELTING REINFORCED ONLY WITH TEXTILE MATERIALS.
401019	CONVEYOR BELTS OR BELTING OF VULCANIZED RUBBER, NESOI.
401031	ENDLESS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), V-RIBBED, OF CIRCUMFERENCE EXCEEDING 60CM BUT NOT EXCEEDING 180 CM.
401032	ENDLESS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), OF CIRCUMFERENCE EXCEEDING 60CM BUT NOT EXCEEDING 180 CM, NESOI.
401033	ENDLESS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), V-RIBBED, OF CIRCUMFERENCE EXCEEDING 180CM BUT NOT EXCEEDING 240 CM.
401034	ENDLESS TRANSMISSION BELTS OF TRAPEZOIDAL CROSS SECTION (V-BELTS), OF CIRCUMFERENCE EXCEEDING 180CM BUT NOT EXCEEDING 240 CM, NESOI.
401035	ENDLESS SYNCHRONOUS BELTS OF A CIRCUMFERENCE EXCEEDING 60 CM BUT NOT EXCEEDING 150 CM.
401036	ENDLESS SYNCHRONOUS BELTS OF A CIRCUMFERENCE EXCEEDING 150 CM BUT NOT EXCEEDING 198 CM.
401039	TRANSMISSION BELTS OR BELTING, OF VULCANIZED RUBBER, NESOI.
401120	NEW PNEUMATIC TIRES, OF RUBBER, OF A KIND USED ON BUSES OR TRUCKS.
401130	NEW PNEUMATIC TIRES, OF RUBBER, OF A KIND USED ON AIRCRAFT.
401211	RETREADED TIRES OF RUBBER, OF A KIND USED ON MOTOR CARS (INCLUDING STATION WAGONS AND RACING CARS).
401212	RETREADED TIRES OF RUBBER, OF A KIND USED ON BUSES OR TRUCKS.
401213	RETREADED TIRES OF RUBBER, OF A KIND USED ON AIRCRAFT.
401219	RETREADED TIRES OF RUBBER, NESOI.
401220	USED PNEUMATIC TIRES, OF RUBBER.
401290	SOLID OR CUSHION TIRES, INTERCHANGEABLE TIRE TREADS AND TIRE FLAPS, OF RUBBER.
401693	GASKETS, WASHERS AND OTHER SEALS, OF VULCANIZED RUBBER OTHER THAN HARD RUBBER.
440711	PINE WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, OF A THICKNESS EXCEEDING 6MM.
440712	FIR WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, OF A THICKNESS EXCEEDING 6MM.
440713	OTHER CONIFEROUS WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, THICKNESS EXCEEDING 6MM.
440714	OTHER CONIFEROUS WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, THICKNESS EXCEEDING 6MM.
440719	OTHER CONIFEROUS WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, THICKNESS EXCEEDING 6MM.
440721	MAHOGANY (SWIETENIA SPP.), SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440722	VIROLA, IMBUIA AND Balsa, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440723	TROPICAL WOOD SAWN ETC., BABOEN, MAHOGANY (SWIETENIA SPP.), IMBUIA AND Balsa, SLICED OR PEELED, PLANED OR NOT ETC., OVER 6 MM (.236 IN.) THICK.
440725	DARK RED MERANTI, LIGHT RED MERANTI AND MERANTI BAKAU, WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, WHETHER OR NOT PLANED, SANDED OR ETC.
440726	WHITE LAUAN, WHITE MERANTI, WHITE SERAYA, YELLOW MERANTI AND ALAN, LUMBER.
440727	SAPELLI, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440728	IROKO, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.

HTS-6 Code	HTS description
440729	OTHER TROPICAL WOOD SPECIFIED IN SUBHEADING NOTE 2 TO THIS CHAPTER, WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED WHETHER OR NOT PLANED, SANDED ETC.
440791	OAK WOOD, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, WHETHER OR NOT PLANED ETC., OVER 6 MM (.236 IN.) THICK.
440792	BEECH WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, WHETHER OR NOT PLANED ETC., OVER 6 MM (.236 IN.) THICK.
440793	MAPLE (ACER SPP.), SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440794	CHERRY, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440795	ASH, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED.
440796	BIRCH WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, OF A THICKNESS EXCEEDING 6MM.
440797	POPLAR AND ASPEN WOOD SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, OF A THICKNESS EXCEEDING 6 MM.
440799	NONCONIFEROUS WOOD NESOI, SAWN OR CHIPPED LENGTHWISE, SLICED OR PEELED, WHETHER OR NOT PLANED, ETC., OVER 6 MM (.236 IN.) THICK.
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441113	MEDIUM DENSITY FIBERBOARD (MDF), OF A THICKNESS EXCEEDING 5 MM BUT NOT EXCEEDING 9 MM.
441194	FIBERBOARD OF WOOD OR OTHER LIGNEOUS MATERIALS, OF A DENSITY NOT EXCEEDING 0.5 G/M3, NESOI.
441210	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, OF BAMBOO.
441231	PLYWOOD CONSISTING SOLELY OF SHEETS OF WOOD (EXC BAMBOO), EACH PLY NOT EXCEEDING 6 MM IN THICKNESS, TROP WD SPEC IN SUBHEAD NT 1.
441233	PLYWOOD, VENEERED PANELS, SIM LAMINATD WOOD, NES, AT LEAST ONE OUTER PLY OF NONCONIFEROUS WOOD OF THE SPECIES SPECIFIED IN THIS SUBHEADING.
441234	PLYWOOD CONSISTING SOLELY OF SHEETS OF WOOD, EACH PLY NOT GT 6MM THICKNESS AT LEAST ONE OUTER PLY OF NONCONIF WOOD NOT SPECIFIED UNDER 4412.33, NES.
441239	PLYWOOD CONSISTING SOLELY OF SHEETS OF WOOD (EXC BAMBOO), EACH PLY NOT EXCEEDING 6 MM IN THICKNESS, CONIFEROUS WD, NESOI.
441241	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, NESOI.
441242	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, NESOI.
441249	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, NESOI.
441251	BLOCKBOARD, LAMINBOARD AND BATTENBOARD, OTHER THAN OF BAMBOO.
441252	BLOCKBOARD, LAMINBOARD AND BATTENBOARD, OTHER THAN OF BAMBOO.
441259	BLOCKBOARD, LAMINBOARD AND BATTENBOARD, OTHER THAN OF BAMBOO.
441291	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, NESOI, CONTAINING AT LEAST ONE LAYER OF PARTICLE BOARD.
441292	VENEERED PANELS AND SIMILAR LAMINATED WOOD, PLYWOOD NESOI, ALL WITH AT LEAST ONE PLY OF TROPICAL WOOD, N.E.S.O.I.
441299	PLYWOOD, VENEERED PANELS AND SIMILAR LAMINATED WOOD, NESOI.
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441830	PARQUET PANELS, OF WOOD.
441840	FORMWORK (SHUTTERING) FOR CONCRETE CONSTRUCTIONAL WORK, OF WOOD.
441879	ASSEMBLED FLOORING PANELS, OF WOOD, NESOI.
450310	CORKS AND STOPPERS OF NATURAL CORK.
450390	ARTICLES OF NATURAL CORK, NESOI.
450410	BLOCKS, PLATES, SHEETS AND STRIP, TILES OF ANY SHAPE, SOLID CYLINDERS, INCLUDING DISKS, OF AGGLOMERATED CORK.
450490	AGGLOMERATED CORK (WITH OR WITHOUT BINDING SUBSTANCES) AND ARTICLES OF AGGLOMERATED CORK, NESOI.
470100	MECHANICAL WOODPULP.
470311	CHEMICAL WOODPULP, SODA OR SULFATE, OTHER THAN DISSOLVING GRADE, UNBLEACHED, CONIFEROUS.
470319	CHEMICAL WOODPULP, SODA OR SULFATE, OTHER THAN DISSOLVING GRADE, UNBLEACHED, NONCONIFEROUS.
470321	CHEMICAL WOODPULP, SODA OR SULFATE, OTHER THAN DISSOLVING GRADES, SEMIBLEACHED OR BLEACHED, CONIFEROUS.
470329	CHEMICAL WOODPULP, SODA OR SULFATE, OTHER THAN DISSOLVING GRADES, SEMIBLEACHED OR BLEACHED, NONCONIFEROUS.
470411	CHEMICAL WOODPULP, SULFITE, OTHER THAN DISSOLVING GRADE, UNBLEACHED, CONIFEROUS.
470419	CHEMICAL WOODPULP, SULFITE, OTHER THAN DISSOLVING GRADES, UNBLEACHED, NONCONIFEROUS.
470421	CHEMICAL WOODPULP, SULFITE, OTHER THAN DISSOLVING GRADES, SEMIBLEACHED OR BLEACHED, CONIFEROUS.
470429	CHEMICAL WOODPULP, SULFITE, OTHER THAN DISSOLVING GRADES, SEMIBLEACHED OR BLEACHED, NONCONIFEROUS.
470500	WOOD PULP OBTAINED BY A COMBINATION OF MECHANICAL AND CHEMICAL PULPING PROCESSES.
470610	COTTON LINTERS PULP.
470620	PULPS OF FIBERS DERIVED FROM RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD.
470630	PULPS OF FIBERS DERIVED OF OTHER FIBROUS CELLULOSIC MATERIAL, OTHER, OF BAMBOO.
470691	MECHANICAL PULPS OF FIBROUS CELLULOSIC MATERIAL (OTHER THAN WOOD), NESOI.
470692	CHEMICAL PULPS OF FIBROUS CELLULOSIC MATERIAL (OTHER THAN WOOD), NESOI.
470693	PULPS OF FIBROUS CELLULOSIC MATERIAL OBTAINED BY A COMBINATION OF MECHANICAL AND CHEMICAL PROCESSES, NESOI.
470710	WASTE AND SCRAP OF UNBLEACHED KRAFT PAPER OR PAPERBOARD OR OF CORRUGATED PAPER OR PAPERBOARD.
470720	RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD, MADE MAINLY OF BLEACHED CHEMICAL PULP, NOT COLORED IN THE MASS.

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470730	RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD, MADE MAINLY OF MECHANICAL PULP (FOR EXAMPLE, NEWSPAPERS, JOURNALS AND SIMILAR PRINTED MATTER.
470790	WASTE AND SCRAP OF PAPER OR PAPERBOARD, NESOI, INCLUDING UNSORTED WASTE AND SCRAP.
480220	PAPER AND PAPERBOARD USED AS A BASE FOR PHOTO-SENSITIVE, HEAT-SENSITIVE OR ELECTRO-SENSITIVE PAPER OR PAPERBOARD, UNCOATED, IN ROLLS OR SHEETS.
480240	WALLPAPER BASE (HANGING PAPER), UNCOATED, IN ROLLS OR SHEETS.
480258	PAPER AND PAPERBOARD, NESOI, NOT OVER 10% (WT.) OF FIBERS (IF ANY) OBTAINED BY MECHANICAL PROCESS, WEIGHING OVER 150 G/M2, UNCOATED, ROLLS OR SHEETS.
480261	PAPER & PAPERBOARD, UNCOATED, OVER 10% BY WEIGHT MECHANICAL FIBERS, IN ROLLS.
480411	KRAFTLINER, UNCOATED, UNBLEACHED, IN ROLLS OR SHEETS.
480419	KRAFTLINER, UNCOATED, BLEACHED, IN ROLLS OR SHEETS.
480421	SACK KRAFT PAPER, UNCOATED, UNBLEACHED, IN ROLLS OR SHEETS.
480429	SACK KRAFT PAPER, UNCOATED, BLEACHED, IN ROLLS OR SHEETS.
480431	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING NOT OVER 150 G/M2, UNCOATED, UNBLEACHED, IN ROLLS OR SHEETS.
480439	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING NOT OVER 150 G/M2, UNCOATED, BLEACHED, IN ROLLS OR SHEETS.
480441	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING OVER 150 G/M2 BUT LESS THAN 225 G/M2, UNCOATED, UNBLEACHED, IN ROLLS OR SHEETS.
480442	KRAFT PAPER AND PAPERBOARD, NESOI, OVER 150 G/M2 BUT UNDER 225 G/M2, UNCOATED, BLEACHED, OVER 95% (WT.) WOOD FIBERS BY CHEMICAL PROCESS, IN ROLLS ETC.
480449	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING OVER 150 G/M2 BUT UNDER 225 G/M2, UNCOATED, BLEACHED NESOI, IN ROLLS OR SHEETS.
480451	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING 225 G/M2 OR OVER, UNCOATED, UNBLEACHED, IN ROLLS OR SHEETS.
480452	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING 225 G/M2 OR OVER, UNCOATED, BLEACHED, OVER 95% (WT.) WOOD FIBERS BY CHEMICAL PROCESS, IN ROLLS OR SHEETS.
480459	KRAFT PAPER AND PAPERBOARD, NESOI, WEIGHING 225 G/M2 OR OVER, UNCOATED, BLEACHED NESOI, IN ROLLS OR SHEETS.
480511	SEMICHEMICAL FLUTING PAPER (CORRUGATING MEDIUM), UNCOATED, IN ROLLS OR SHEETS.
480512	STRAW FLUTING PAPER, UNCOATED, IN ROLLS/SHEETS, NOT FURTHER WORKED/PROCESSED THAN AS SPECIFIED IN NOTE 3 TO CHAPTER 48.
480519	FLUTING PAPER, UNCOATED, IN ROLLS/SHEETS, NOT FURTHER WORKED OR PROCESSED THAN AS SPECIFIED IN NOTE 3 TO CHAPTER 48, NESOI.
480524	TESTLINER (RECYCLED LINER BOARD), UNCOATED, IN ROLLS/SHEETS, NOT FURTHER WORKED THAN AS SPECIFIED IN NOTE 3 TO CHAPTER 48, WEIGHTING 150 G/M2 OR LESS.
480525	TESTLINER (RECYCLED LINER BOARD), UNCOATED, IN ROLLS/SHEETS, NOT FURTHER WORKED THAN AS SPECIFIED IN NOTE 3 TO CHAPTER 48, WEIGHING MORE THAN 150 G/M2.
480530	SULFITE WRAPPING PAPER, UNCOATED, IN ROLLS OR SHEETS.
480540	FILTER PAPER AND PAPERBOARD, UNCOATED, IN ROLLS OR SHEETS.
480550	FELT PAPER AND PAPERBOARD, UNCOATED, IN ROLLS OR SHEETS.
480591	PAPER & PAPERBOARD, UNCOATED, WEIGHING 150 G/M2 OR LESS, IN ROLLS OR SHEETS, NESOI.
480592	PAPER & PAPERBOARD, UNCOATED, IN ROLLS/SHEETS, WEIGHING MORE THAN 150 BUT LESS THAN 225 G/M2, NESOI.
480593	PAPER & PAPERBOARD, UNCOATED, IN ROLLS/SHEETS, WEIGHING 225 G/M2 OR MORE, NESOI.
480610	VEGETABLE PARCHMENT PAPER, IN ROLLS OR SHEETS.
480620	GREASEPROOF PAPERS (AS MANUFACTURED), IN ROLLS OR SHEETS.
480630	TRACING PAPERS, IN ROLLS OR SHEETS.
480640	GLASSINE AND OTHER GLAZED TRANSPARENT OR TRANSLUCENT PAPERS, IN ROLLS OR SHEETS.
480700	COMPOSITE PAPER & PAPERBOARD (MADE BY STICKING FLAT LAYERS OF PAPER/PBRD TOGETHER W/AN ADHESIVE), NOT SURFACE-COATED OR IMPREGNATED, IN ROLLS/SHEETS.
480810	CORRUGATED PAPER AND PAPERBOARD, WHETHER OR NOT PERFORATED, NESOI, IN ROLLS OR SHEETS.
480840	KRAFT PAPER IN ROLLS OR SHEETS, CREPED OR CRINKLED, WHETHER OR NOT EMBOSSED OR PERFORATED, NESOI.
480890	PAPER AND PAPERBOARD, NESOI, CREPED, CRINKLED, EMBOSSED OR PERFORATED, IN ROLLS OR SHEETS.
480920	SELF-COPY PAPER, IN ROLLS OVER 36 CM WIDE OR RECTANGULAR SHEETS WITH AT LEAST ONE SIDE OVER 36 CM IN UNFOLDED STATE.
480990	COPYING OR TRANSFER PAPERS, COATED OR IMPREGNATED, INCLUDING FOR DUPLICATOR STENCILS OR OFF-SET PLATES, IN ROLLS OR RECTANGULAR SHEETS OVER 36CM WIDE.
481013	PAPER & PAPERBOARD, FOR WRITING/PRINTING/GRAPHIC PURPOSE, CLAY COATED, NOT OVER 10% MECH FIBERS, IN ROLLS.
481014	PAPER & PAPERBOARD, FOR WRITING/PRINTING/GRAPHIC PURPOSE, CLAY COATED, IN SHEETS 1 SIDE NOT EXCEEDING 435 MM OTHER <297MM, UNFOLDED.
481019	PAPER & PAPERBOARD, FOR WRITING/PRINTING/GRAPHIC PURPOSE, CLAY COATED, NOT OVER 10% MECH FIBERS, NESOI.
481022	PAPER, LIGHT-WEIGHT COATED, USED FOR WRITING, PRINTING OR OTHER GRAPHIC PURPOSES, OVER 10% (WT.) MECHANICAL FIBERS, IN ROLLS OR SHEETS.
481029	PAPER AND PAPERBOARD FOR WRITING, PRINTING OR OTHER GRAPHIC PURPOSES, OVER 10% (WT.) MECHANICAL FIBERS, CLAY COATED NESOI, IN ROLLS OR SHEETS.
481031	KRAFT PAPER AND PAPERBOARD (NOT FOR WRITING, ETC.), OVER 95% WOOD FIBER BY CHEMICAL PROCESS, NOT OVER 150 G/M2, CLAY COATED, BLEACHED, IN ROLLS ETC.
481032	KRAFT PAPER AND PAPERBOARD (NOT FOR WRITING, ETC.), OVER 95% WOOD FIBER BY CHEMICAL PROCESS, OVER 150 G/M2, CLAY COATED, BLEACHED, IN ROLLS OR SHEETS.

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481039	KRAFT PAPER AND PAPERBOARD (NOT FOR WRITING, PRINTING OR OTHER GRAPHIC PURPOSES), CLAY COATED, UNBLEACHED, IN ROLLS OR SHEETS.
481092	PAPER AND PAPERBOARD (OTHER THAN KRAFT OR GRAPHIC), MULTI-PLY, CLAY COATED, IN ROLLS OR SHEETS.
481099	PAPER AND PAPERBOARD (OTHER THAN KRAFT OR GRAPHIC), NESOI, CLAY COATED, IN ROLLS OR SHEETS.
481110	PAPER AND PAPERBOARD COATED OR IMPREGNATED WITH TAR, BITUMEN OR ASPHALT, NESOI, IN ROLLS OR SHEETS.
481151	PAPER & PAPERBOARD, COATED, IMPREGNATED OR COVERED WITH PLASTICS (EXCLUDING ADHESIVES), BLEACHED, WEIGHING MORE THAN 150 G/M2.
481159	PAPER & PAPERBOARD, COATED IMPREGNATED OR COVERED WITH PLASTICS (EXCLUDING ADHESIVES), NESOI
481160	PAPER & PAPERBOARD, COATED, IMPREGNATED OR COVERED WITH WAX, PARAFIN, STEAIN, OIL, OR GLYCEROL.
481190	PAPER, PAPERBOARD, CELLULOSE WADDING AND WEBS OF CELLULOSE FIBERS, COATED, IMPREGNATED, ETC. NESOI, IN ROLLS OR SHEETS.
481490	WALLPAPER AND SIMILAR WALLCOVERING, NESOI; WINDOW TRANSPARENCIES OF PAPER.
481920	FOLDING CARTONS, BOXES AND CASES, OF NON-CORRUGATED PAPER OR PAPERBOARD USED IN OFFICES, SHOPS, OR THE LIKE.
482210	BOBBINS, SPOOLS, COPS AND SIMILAR SUPPORTS OF PAPER PULP, PAPER OR PAPERBOARD OF A KIND USED FOR WINDING TEXTILE YARN.
482290	BOBBINS, SPOOLS, COPS AND SIMILAR SUPPORTS OF PAPER PULP, PAPER OR PAPERBOARD, NESOI.
482320	FILTER PAPER AND PAPERBOARD, CUT TO SIZE OR SHAPE.
482340	ROLLS, SHEETS AND DIALS, PRINTED FOR SELF-RECORDING APPARATUS, CUT TO SIZE OR SHAPE, OF PAPER OR PAPERBOARD.
482361	TRAYS, DISHES, PLATES, CUPS AND THE LIKE OF PAPER OR PAPERBOARD, OF BAMBOO.
482369	TRAYS, DISHES, PLATES, CUPS AND THE LIKE, OF PAPER OR PAPERBOARD, NES.
482370	MOLDED OR PRESSED ARTICLES OF PAPER PULP.
482390	ARTICLES OF PAPER PULP, PAPER, PAPERBOARD, CELLULOSE WADDING OR WEBS OF CELLULOSE FIBERS, NESOI.
490600	PLANS AND DRAWINGS FOR ARCHITECTURAL, ENGINEERING, INDUSTRIAL, COMMERCIAL, TOPOGRAPHICAL OR SIMILAR PURPOSES, ORIGINALS AND SPECIFIC REPRODUCTIONS.
510510	WOOL, CARDED.
510521	WOOL, COMBED, IN FRAGMENTS.
510529	WOOL TOPS AND OTHER COMBED WOOL, NESOI.
510531	WOOL AND FINE ANIMAL HAIR, OF KASHMIR (CASHMERE) GOATS, CARDED OR COMBED (INCLUDING COMBED WOOL IN FRAGMENTS).
510539	FINE ANIMAL HAIR, CARDED OR COMBED, NESOI.
510540	COARSE ANIMAL HAIR, CARDED OR COMBED.
510610	YARN OF CARDED WOOL, NOT PUT UP FOR RETAIL SALE, CONTAINING 85% OR MORE BY WEIGHT OF WOOL.
510620	YARN OF CARDED WOOL, NOT PUT UP FOR RETAIL SALE, CONTAINING LESS THAN 85% BY WEIGHT OF WOOL.
510710	YARN OF COMBED WOOL, NOT PUT UP FOR RETAIL SALE, CONTAINING 85% OR MORE BY WEIGHT OF WOOL.
510720	YARN OF COMBED WOOL, NOT PUT UP FOR RETAIL SALE, CONTAINING LESS THAN 85% BY WEIGHT OF WOOL.
511211	WOVEN FABRICS CONTAINING 85% OR MORE BY WEIGHT OF COMBED WOOL OR FINE ANIMAL HAIR, NOT OVER 200 G/M2.
511219	WOVEN FABRICS CONTAINING 85% OR MORE BY WEIGHT OF COMBED WOOL OR FINE ANIMAL HAIR, NESOI.
511220	WOVEN FABRICS OF COMBED WOOL OR OF FINE ANIMAL HAIR, NESOI, MIXED MAINLY OR SOLELY WITH MAN-MADE FILAMENTS.
511230	WOVEN FABRICS OF COMBED WOOL OR OF FINE ANIMAL HAIR, NESOI, MIXED MAINLY OR SOLELY WITH MAN-MADE STAPLE FIBERS.
511290	WOVEN FABRICS OF COMBED WOOL OR FINE ANIMAL HAIR, NESOI.
520511	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE UNCOMBED YARN, NOT OVER 14 NM.
520512	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE UNCOMBED YARN, OVER 14 NM BUT NOT OVER 43 NM.
520513	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE UNCOMBED YARN, OVER 43 NM BUT NOT OVER 52 NM.
520514	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE UNCOMBED YARN, OVER 52 NM BUT NOT OVER 80 NM.
520515	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE UNCOMBED YARN, OVER 80 NM.
520521	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE COMBED YARN, NOT OVER 14 NM.
520522	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE COMBED YARN, OVER 14 NM BUT NOT OVER 43 NM.
520523	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE COMBED YARN, OVER 43 NM BUT NOT OVER 52 NM.
520524	COTTON YARN NESOI, 85% OR MORE BY WEIGHT OF COTTON, NOT PUT UP FOR RETAIL SALE, SINGLE COMBED YARN, OVER 52 NM BUT NOT OVER 80 NM.
520526	COTTON YARN (OTH THAN SEWING THREAD) 85% OR MORE BY WGT COTTON, NT FOR RETAIL SALE: SINGLE YARN OF COMBED FIBER > 80NM AND LESS THAN 94NM.
520527	COTTON YARN (OTH THAN SEWING THREAD) 85% OR MORE BY WGT COTTON, NT FOR RETAIL SALE: SINGLE YARN OF COMBED FIBER > 94NM BUT LESS THAN 120NM.
520528	COTTON YARN (OTH THAN SEWING THREAD) 85% OR MORE BY WGT COTTON, NT FOR RETAIL SALE: SINGLE YARN OF COMBED FIBER GREATER THAN 120NM.
520531	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED UNCOMBED YARN, NOT OVER 14 NM PER SINGLE YARN.



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520532	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED UNCOMBED YARN, OVER 14 NM BUT NOT OVER 43 NM PER SINGLE YARN.
520533	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED UNCOMBED YARN, OVER 43 NM BUT NOT OVER 52 NM PER SINGLE YARN.
520534	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED UNCOMBED YARN, OVER 52 NM BUT NOT OVER 80 NM PER SINGLE YARN.
520535	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED UNCOMBED YARN, OVER 80 NM PER SINGLE YARN.
520541	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED COMBED YARN, NOT OVER 14 NM PER SINGLE YARN.
520542	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED COMBED YARN, OVER 14 NM BUT NOT OVER 43 NM PER SINGLE YARN.
520543	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED COMBED YARN, OVER 43 NM BUT NOT OVER 52 NM PER SINGLE YARN.
520544	COTTON YARN NESOI, 85% OR MORE (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED COMBED YARN, OVER 52 NM BUT NOT OVER 80 NM PER SINGLE YARN.
520546	COTTON YARN (NOT SEWING THREAD) 85% OR > BY WGT OF COTTON NT FOR RET AIL SALE: MULTI OR CBLD YRN OF COMBED FIBERS > 80NM BUT < 94NM.
520547	COTTON YARN (NOT SEWING THREAD) 85% OR > BY WGT OF COTTON NT FOR RET AIL SALE: MULTI OR CBLD YRN OF COMBED FIBERS > 94NM BUT < 120NM.
520548	COTTON YARN (NOT SEWING THREAD) 85% OR > BY WGT OF COTTON NT FOR RET AIL SALE: MULTI OR CBLD YRN OF COMBED FIBERS > 120NM.
520642	COTTON YARN NESOI, LESS THAN 85% (WT.) COTTON, NOT FOR RETAIL SALE, MULTIPLE OR CABLED COMBED YARN, OVER 14 NM BUT NOT OVER 43 NM PER SINGLE YARN.
520911	WOVEN FABRICS OF COTTON, 85% OR MORE COTTON BY WEIGHT, UNBLEACHED, PLAIN WEAVE, WEIGHING OVER 200 G/M2.
521111	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, UNBLEACHED, PLAIN WEAVE, WEIGHING OVER 200 G/M2.
521112	WOVEN FABRICS OF COTTON, UNDER 85% COTTON (WT.) MIXED MAINLY WITH MANMADE FIBERS, UNBLEACHED, 3-THREAD, 4-THREAD OR CROSS TWILL, OVER 200 G/M2.
521119	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, UNBLEACHED, EXCEPT PLAIN WEAVE, NESOI, OVER 200 G/M2.
521120	WOVEN FABRICS OF COTTON, CONTAINING LESS THAN 85% WT COTTON, MIXED W/MANMADE FIBERS, WEIGHING MORE THAN 200 G/M2, BLEACHED, PLAIN WEAVE.
521131	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, DYED, PLAIN WEAVE, WEIGHING OVER 200 G/M2.
521132	WOVEN FABRICS OF COTTON, UNDER 85% COTTON (WT.) MIXED MAINLY WITH MANMADE FIBERS, DYED, 3-THREAD, 4-THREAD OR CROSS TWILL, WEIGHING OVER 200 G/M2.
521139	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, DYED, EXCEPT PLAIN WEAVE, NESOI, WEIGHING OVER 200 G/M2.
521141	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, DIFFERENT COLORED YARNS, PLAIN WEAVE, OVER 200 G/M2.
521142	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, DENIM, WEIGHING OVER 200 G/M2.
521143	WOVEN FABRICS OF COTTON, UNDER 85% COTTON (WT.) MIXED MAINLY WITH MANMADE FIBERS, DIFFERENT COLORED YARNS, 3-, 4-THREAD OR CROSS TWILL, OVER 200 G/M2.
521149	WOVEN FABRICS OF COTTON, UNDER 85% COTTON (WT.) MIXED MAINLY WITH MANMADE FIBERS, DIFFERENT COLORED YARNS, EXCEPT PLAIN WEAVE, NESOI, OVER 200 G/M2.
521151	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, PRINTED, PLAIN WEAVE, WEIGHING OVER 200 G/M2.
521152	WOVEN FABRICS OF COTTON, UNDER 85% COTTON (WT.) MIXED MAINLY WITH MANMADE FIBERS, PRINTED, 3-THREAD, 4-THREAD OR CROSS TWILL, WEIGHING OVER 200 G/M2.
521159	WOVEN FABRICS OF COTTON, LESS THAN 85% COTTON BY WEIGHT, MIXED MAINLY WITH MANMADE FIBERS, PRINTED, EXCEPT PLAIN WEAVE, NESOI, WEIGHING OVER 200 G/M2.
530810	YARN OF COCONUT TEXTILE FIBERS (COIR YARN).
530820	YARN OF TRUE HEMP TEXTILE FIBERS.
530890	YARN OF VEGETABLE TEXTILE FIBERS, NESOI.
540263	POLYPROPYLENE YARN, MUTIPLE (FOLEDED) OR CABLES, NOT FOR RETAIL SALE, NESOI.
540310	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, HIGH TENACITY YARN OF VISCOSE RAYON.
540331	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, SINGLE YARN NESOI, NOT OVER 120 TURNS PER METER IF TWISTED, OF VISCOSE RAYON.
540332	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, SINGLE YARN NESOI, TWISTED WITH OVER 120 TURNS PER METER, OF VISCOSE RAYON.
540333	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, SINGLE YARN NESOI, OF CELLULOSE ACETATE.
540339	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, SINGLE YARN NESOI, OF YARNS NESOI.
540341	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, YARN NESOI, MULTIPLE OR CABLED, OF VISCOSE RAYON.
540342	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, YARN NESOI, MULTIPLE OR CABLED, OF CELLULOSE ACETATE.
540349	ARTIFICIAL FILAMENT YARN EXCEPT SEWING THREAD, NOT FOR RETAIL SALE, YARN NESOI, MULTIPLE OF CABLED, OF YARNS NESOI.

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540411	SYNTHETIC ELASTOMERIC MONOFILAMENT OF 67 DECITEX OR MORE AND OF WHICH NO CROSS-SECTIONAL DIMENSION EXCEEDS 1 MM, NESOI.
540412	POLYPROPYLENE MONOFILAMENT OF 67 DECITEX OR MORE AND OF WHICH NO CROSS-SECTIONAL DIMENSION EXCEEDS 1 MM, NESOI.
540419	SYNTHETIC MONOFILAMENT OF 67 DECITEX AND OF WHICH NO CROSS-SECTIONAL DIMENSION EXCEEDS 1 MM, NESOI.
540490	SYNTHETIC STRIP AND THE LIKE (FOR EXAMPLE, ARTIFICIAL STRAW) OF SYNTHETIC TEXTILE MATERIALS OF AN APPARENT WIDTH NOT OVER 5 MM.
540730	WOVEN FABRICS OF SYNTHETIC FILAMENT YARN SPECIFICALLY BONDED IN LAYERS.
550111	SYNTHETIC FILAMENT TOW OF NYLON OR OTHER POLYAMIDES.
550119	SYNTHETIC FILAMENT TOW OF NYLON OR OTHER POLYAMIDES.
550120	SYNTHETIC FILAMENT TOW OF POLYESTERS.
550130	SYNTHETIC FILAMENT TOW, ACRYLIC OR MODACRYLIC.
550140	SYNTHETIC FILAMENT TOW, OF POLYPROPYLENE.
550190	SYNTHETIC FILAMENT TOW, NESOI.
550210	ARTIFICIAL FILAMENT TOW OF CELLULOSE ACETATE.
550290	ARTIFICIAL FILAMENT TOW OTHER THAN OF CELLULOSE ACETATE.
550311	STAPLE FIBERS, OF ARAMIDS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING.
550319	STAPLE FIBERS, OF NYLONS OR OTHER POLYAMIDES, EXCLUDING ARAMIDS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING.
550320	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, OF POLYESTERS.
550330	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, ACRYLIC OR MODACRYLIC.
550340	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, POLYPROPYLENE.
550390	SYNTHETIC STAPLE FIBERS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, NESOI.
550490	ARTIFICIAL STAPLE FIBERS, NOT CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, OTHER THAN VISCOSE RAYON.
550610	SYNTHETIC STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, OF NYLON OR OTHER POLYAMIDES.
550620	SYNTHETIC STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, OF POLYESTERS.
550630	SYNTHETIC STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, ACRYLIC OR MODACRYLIC.
550640	SYNTHETIC STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING OF POLYPROPYLENE.
550690	SYNTHETIC STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING, NESOI.
550700	ARTIFICIAL STAPLE FIBERS, CARDED, COMBED OR OTHERWISE PROCESSED FOR SPINNING.
551221	WOVEN FABRICS OF SYNTHETIC STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF ACRYLIC OR MODACRYLIC STAPLE FIBERS, UNBLEACHED OR BLEACHED.
551299	WOVEN FABRICS OF SYNTHETIC STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF SYNTHETIC STAPLE FIBERS NESOI, PRINTED, DYED OR COLORED.
551611	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF SUCH FIBERS, UNBLEACHED OR BLEACHED.
551612	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF SUCH FIBERS, DYED.
551613	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF SUCH FIBERS, OF DIFFERENT COLORED YARNS.
551614	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING 85% OR MORE BY WEIGHT OF SUCH FIBERS, PRINTED.
551621	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH MANMADE FILAMENTS, UNBLEACHED OR BLEACHED.
551622	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH MANMADE FILAMENTS, DYED.
551623	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH MANMADE FILAMENTS, OF DIFFERENT COLORED YARNS.
551624	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH MANMADE FILAMENTS, PRINTED.
551631	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH WOOL OR FINE ANIMAL HAIR, UNBLEACHED OR BLEACHED.
551632	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH WOOL OR FINE ANIMAL HAIR, DYED.
551633	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH WOOL OR FINE ANIMAL HAIR, OF DIFFERENT COLORED YARNS.
551634	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH WOOL OR FINE ANIMAL HAIR, PRINTED.
551641	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH COTTON, UNBLEACHED OR BLEACHED.
551642	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH COTTON, DYED.
551643	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH COTTON, OF DIFFERENT COLORED YARNS.
551644	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH COTTON, PRINTED.

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551691	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH OTHER FIBERS NESOI, UNBLEACHED OR BLEACHED.
551692	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH OTHER FIBERS NESOI, DYED.
551693	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH OTHER FIBERS NESOI, OF DIFFERENT COLORED YARNS.
551694	WOVEN FABRICS OF ARTIFICIAL STAPLE FIBERS, CONTAINING UNDER 85% (WT.) OF SUCH FIBERS, MIXED WITH OTHER FIBERS NESOI, PRINTED.
560129	WADDING AND ARTICLES OF WADDING NESOI, OF TEXTILE MATERIALS OTHER THAN COTTON OR MANMADE FIBERS.
560130	TEXTILE FLOCK (TEXTILE FIBERS NOT EXCEEDING 5 MM IN LENGTH) AND DUST AND MILL NEPS.
560410	RUBBER THREAD AND CORD, TEXTILE COVERED.
560490	MANMADE TEXTILE YARN OF 67 DECITEX OR MORE, NO CROSS-SECTIONAL DIMENSION OVER 1 MM AND STRIP NOT OVER 5 MM WIDE, RUBBER OR PLASTICS COATED ETC., NESOI.
560500	METALLIZED MANMADE TEXTILE YARN OF 67 DECITEX OR MORE, NO CROSS-SECTION OVER 1 MM, GIMPED OR NOT, AND STRIP NOT OVER 5 MM WIDE COMBINED WITH METAL.
560741	BINDER OR BALER TWINE, WHETHER OR NOT PLAITED OR BRAIDED OR COATED ETC. WITH RUBBER OR PLASTICS, OF POLYETHYLENE OR POLYPROPYLENE.
580127	WARP PILE FABRICS OF COTTON.
580300	GAUZE, OTHER THAN NARROW FABRICS OF HEADING 5806.
580640	NARROW FABRICS CONSISTING OF WARP WITHOUT WEFT ASSEMBLED BY MEANS OF AN ADHESIVE (BOLDUCS).
590110	TEXTILE FABRICS COATED WITH GUM OR AMYLACEOUS SUBSTANCES, OF A KIND USED FOR THE OUTER COVERS OF BOOKS OR THE LIKE.
590190	TRACING CLOTH; PREPARED PAINTING CANVAS; BUCKRAM AND SIMILAR STIFFENED TEXTILE FABRICS OF A KIND USED FOR HAT FOUNDATIONS.
590500	TEXTILE WALL COVERINGS.
590800	TEXTILE WICKS FOR LAMPS, STOVES, LIGHTERS, CANDLES ETC; GAS MANTLES AND TUBULAR KNITTED GAS MANTLE FABRIC, WHETHER OR NOT IMPREGNATED.
591000	TRANSMISSION OR CONVEYOR BELTS OR BELTING, OF TEXTILE MATERIAL, WHETHER OR NOT REINFORCED WITH METAL OR OTHER MATERIAL OR COATED IMPREG WITH PLASTICS.
591110	TEXTILE FABRICS, FELT AND FELT-LINED WOVEN WITH LAYERS OF RUBBER, LEATHER, ETC. FOR CARD CLOTHING, AND SIMILAR FABRIC FOR OTHER TECHNICAL USES.
591131	TEXTILE FABRICS AND FELTS, ENDLESS OR FITTED WITH LINKING DEVICES, OF A KIND USED IN PAPERMAKING OR SIMILAR MACHINES, WEIGHING LESS THAN 650 G/M2.
591132	TEXTILE FABRICS AND FELTS, ENDLESS OR FITTED WITH LINKING DEVICES, OF A KIND USED IN PAPERMAKING OR SIMILAR MACHINES, WEIGHING 650 G/M2 OR MORE.
591140	TEXTILE STRAINING CLOTH OF A KIND USED IN OIL PRESSES OR THE LIKE, INCLUDING HUMAN HAIR.
600199	PILE FABRICS NESOI, KNITTED OR CROCHETED, OF TEXTILE MATERIALS NESOI.
600310	KNIT/CROCHETED FABRICS OF A WIDTH NOT EXCEEDING 30 CM, OTHER THAN OF HEADINGS 6001 OR 6002, OF WOOL OR FINE ANIMAL HAIR.
600320	KNIT/CROCHETED FABRICS OF A WIDTH NOT EXCEEDING 30 CM, OTHER THAN OF HEADINGS 6001 OR 6002, OF COTTON.
600330	KNIT OR CROCHETED FABRICS OF A WIDTH NOT EXCEEDING 30CM, OF SYNTHETIC FIBERS, OTHER THAN THOSE OF HEADING 6001 OR 6002.
600340	KNIT OR CROCHETED FABRICS OF A WIDTH NOT EXCEEDING 30CM, OF ARTIFICIAL FIBERS, OTHER THAN THOSE OF HEADING 6001 OR 6002.
600390	KNIT/CROCHETED FABRICS OF A WIDTH NOT EXCEEDING 30CM, OTHER THAN THOSE OF HEADING 6001 OR 6002, NESOI.
600536	WARP KNIT FABRICS, OF SYNTHETIC FIBERS, OTHER, UNBLEACHED OR BLEACHED.
600544	WARP KNIT FABRICS (INCLUDING THOSE MADE ON GALLOON KNITTING MACHINES) OF PRINTED ARTIFICIAL FIBERS.
600610	KNITTED OR CROCHETED FABRICS NESOI, OF WOOL OR FINE ANIMAL HAIR.
630900	WORN CLOTHING AND OTHER WORN TEXTILE ARTICLES.
680292	WORKED MONUMENTAL OR BUILDING STONE NESOI, OF CALCAREOUS STONE NESOI.
680423	MILLSTONES, GRINDSTONES, GRINDING WHEELS AND THE LIKE NESOI, OF NATURAL STONE.
680610	SLAG WOOL, ROCK WOOL AND SIMILAR MINERAL WOOLS (INCLUDING INTERMIXTURES THEREOF), IN BULK, SHEETS OR ROLLS.
680620	EXFOLIATED VERMICULITE, EXPANDED CLAYS, FOAMED SLAG AND SIMILAR EXPANDED MINERAL MATERIALS (INCLUDING INTERMIXTURES THEREOF).
680690	MIXTURES AND ARTICLES OF HEAT-INSULATING, SOUND-INSULATING OR SOUND-ABSORBING MINERAL MATERIALS NESOI.
680710	ARTICLES OF ASPHALT OR OF SIMILAR MATERIAL (PETROLEUM BITUMEN OR COAL TAR PITCH ETC.), IN ROLLS.
680790	ARTICLES OF ASPHALT OR OF SIMILAR MATERIAL (PETROLEUM BITUMEN OR COAL TAR PITCH ETC.) NESOI.
680919	PANELS, SHEETS, TILES AND SIMILAR ARTICLES, NOT ORNAMENTED, OF PLASTER OR COMPOSITIONS BASED ON PLASTER, NESOI.
681091	PREFABRICATED STRUCTURAL COMPONENTS FOR BUILDING OR CIVIL ENGINEERING MADE OF CEMENT, CONCRETE OR ARTIFICIAL STONE, WHETHER OR NOT REINFORCED.
681140	ARTICLES OF ASBESTOS-CEMENT, OF CELLULOSE FIBER-CEMENT OR THE LIKE, CONTAINING ASBESTOS.
681181	CORRUGATED SHEETS, OF CELLULOSE FIBER-CEMENT OR THE LIKE, NOT CONTAINING ASBESTOS.
681182	SHEETS, PANELS, TILES AND SIMILAR ARTICLES, OF CELLULOSE FIBER-CEMENT OR THE LIKE, NOT CONTAINING ASBESTOS, EXCLUDING CORRUGATED SHEETS.
681189	ARTICLES OF CELLULOSE FIBER-CEMENT OR THE LIKE, NOT CONTAINING ASBESTOS, NESOI.
681320	FRICITION MATERIAL AND ARTICLES THEREOF, UNMOUNTED, WITH A BASIS OF ASBESTOS.
681381	BRAKE LININGS AND PADS NOT OF ASBESTOS, OTHER MINERAL SUBSTANCES OR CELLULOSE.

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681389	FRICITION MATERIAL AND ARTICLES THEREOF (EXCEPT BRAKE LININGS OR PADS), UNMOUNTED, NOT CONTAINING ASBESTOS, OTHER MINERAL SUBSTANCES OR OF CELLULOSE, NES.
681490	WORKED MICA AND ARTICLES OF MICA, NESOI.
681511	NONELECTRICAL ARTICLES OF GRAPHITE OR CARBON, NESOI.
690100	BRICKS, BLOCKS, TILES AND OTHER CERAMIC GOODS OF SILICEOUS FOSSIL MEALS (INCLUDING KIESELGUHR, TRIPOLITE OR DIATOMITE) OR SIMILAR SILICEOUS EARTHS.
690410	CERAMIC BUILDING BRICKS.
690510	CERAMIC ROOFING TILES.
690590	CERAMIC CHIMNEY POTS, COWLS, CHIMNEY LINERS, ARCHITECTURAL ORNAMENTS AND OTHER CERAMIC CONSTRUCTIONAL GOODS NESOI.
690600	CERAMIC PIPES, CONDUITS, GUTTERING AND PIPE FITTINGS.
690722	CERAMIC FLAGS AND PAVING, HEARTH OR WALL TILES, OF A WATER ABSORPTION COEFFICIENT BY WEIGHT EXCEEDING 0.5 BUT NOT EXCEEDING 10%.
690740	FINISHING CERAMICS.
690990	CERAMIC TROUGHS, TUBS ETC. USED IN AGRICULTURE; CERAMIC POTS, JARS AND SIMILAR ARTICLES FOR THE CONVEYANCE OR PACKING OF GOODS.
700210	GLASS BALLS (EXCEPT MICROSHERES NOT OVER 1 MM IN DIAMETER), UNWORKED.
700220	GLASS RODS, UNWORKED.
700231	TUBES OF FUSED QUARTZ OR OTHER FUSED SILICA, UNWORKED.
700232	GLASS NESOI, HAVING A LINEAR COEFFICIENT OF EXPANSION NOT OVER $5 \times 10^{-6}$ PER KELVIN WITHIN A TEMPERATURE RANGE OF 0 TO 300 DEGREES C, UNWORKED.
700239	TUBES OF GLASS NESOI, UNWORKED.
700312	CAST AND ROLLED GLASS, NONWIRED SHEETS, COLORED THROUGHOUT THE MASS, OPACIFIED, FLASHED, WITH AN ABSORBENT, REFLECTING OR NONREFLECTING LAYER.
700319	CAST GLASS AND ROLLED GLASS, IN NONWIRED SHEETS NESOI (NOT BODY TINTED, OPACIFIED OR FLASHED AND WITHOUT AN ABSORBENT OR REFLECTING LAYER), UNWORKED.
700320	CAST GLASS AND ROLLED GLASS, IN WIRED SHEETS, WHETHER OR NOT HAVING AN ABSORBENT OR REFLECTING LAYER, BUT NOT OTHERWISE WORKED.
700330	CAST GLASS AND ROLLED GLASS, IN PROFILES, WHETHER OR NOT HAVING AN ABSORBENT OR REFLECTING LAYER, BUT NOT OTHERWISE WORKED.
700420	GLASS, COLORED THROUGHOUT THE MASS, OPACIFIED, FLASHED OR AN ABSORBENT, REFLECTING OR NONREFLECTING LAYER, DRAWN OR BLOWN, SHEETS NOT OTHERWISE WORKED.
700490	DRAWN GLASS AND BLOWN GLASS, IN SHEETS, WHETHER OR NOT HAVING AN ABSORBENT OR REFLECTING LAYER, BUT NOT OTHERWISE WORKED, NESOI.
700510	FLOAT GLASS AND SURFACE GROUND OR POLISHED GLASS, IN SHEETS, NONWIRED, WITH AN ABSORBENT, REFLECTING OR NONREFLECTING LAYER, BUT NOT OTHERWISE WORKED.
700521	FLOAT AND OTHER GLASS, IN NONWIRED SHEETS, COLORED THROUGHOUT THE MASS, OPACIFIED, FLASHED OR SURFACE GROUND, WITHOUT AN ABSORBENT OR REFLECTING LAYER.
700529	FLOAT GLASS AND SURFACE GROUND OR POLISHED GLASS, IN NONWIRED SHEETS, NESOI.
700530	FLOAT GLASS AND SURFACE GROUND OR POLISHED GLASS, IN WIRED SHEETS, WHETHER OR NOT HAVING AN ABSORBENT OR REFLECTING LAYER, BUT NOT OTHERWISE WORKED.
700711	TOUGHENED (TEMPERED) SAFETY GLASS, OF SIZE AND SHAPE SUITABLE FOR INCORPORATION IN VEHICLES, AIRCRAFT, SPACECRAFT OR VESSELS.
700729	LAMINATED SAFETY GLASS, NOT SUITABLE FOR INCORPORATION IN VEHICLES, AIRCRAFT, SPACECRAFT OR VESSELS.
701110	GLASS ENVELOPES, OPEN, AND GLASS PARTS THEREOF, WITHOUT FITTINGS, FOR ELECTRIC LIGHTING.
701911	CHOPPED STRANDS OF GLASS FIBERS NOT OVER 50 MM LONG.
701912	GLASS FIBER ROVINGS.
701913	GLASS FIBERS (INCLUDING GLASS WOOL) AND ARTICLES THEREOF (FOR EXAMPLE, YARN, WOVEN FABRICS), N.E.S.O.I.
720292	FERROVANADIUM.
720711	SEMIFINISHED PRODUCTS OF IRON OR NONALLOY STEEL, UNDER 0.25% (WT.) CARBON, RECTANGULAR OR SQUARE CROSS SECTION, WIDTH LESS THAN TWICE THE THICKNESS.
720712	SEMIFINISHED PRODUCTS OF IRON OR NONALLOY STEEL, UNDER 0.25% (WT.) CARBON, RECTANGULAR CROSS SECTION, WIDTH NOT LESS THAN TWICE THE THICKNESS.
720719	SEMIFINISHED PRODUCTS OF IRON OR NONALLOY STEEL, UNDER 0.25% (WT.) CARBON, CROSS SECTION OTHER THAN RECTANGULAR, NESOI.
720720	SEMIFINISHED PRODUCTS OF IRON OR NONALLOY STEEL, CONTAINING 0.25% (WT.) OR MORE OF CARBON.
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721090	FLAT-ROLLED IRON OR NONALLOY STEEL PRODUCTS, 600 MM OR MORE WIDE, CLAD, PLATED OR COATED, NESOI.
721113	FLAT-ROLLED HIGH-STRENGTH IRON OR NONALLOY STEEL UNDER 600MM WIDE HOT-ROLLED, NOT CLAD, COATED OR PLATED, UNIVERSAL MILLPLATE.
721114	FLAT-ROLLED HIGH-STRENGTH IRON OR NONALLOY STEEL UNDER 600MM WIDE HOT-ROLLED, NOT CLAD, COATED OR PLATED 4.75MM THICK OR MORE.
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721129	FLAT-ROLLED IRON OR NONALLOY STEEL PRODUCTS UNDER 600 MM WIDE, COLD-ROLLED, NOT CLAD, PLATED OR COATED, NESOI.
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721210	FLAT-ROLLED IRON OR NONALLOY STEEL PRODUCTS, UNDER 600 MM WIDE, PLATED OR COATED WITH TIN.

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721260 .....	FLAT-ROLLED IRON OR NONALLOY STEEL PRODUCTS, UNDER 600 MM WIDE, CLAD.
721310 .....	BARS AND RODS OF IRON OR NONALLOY STEEL, HOT-ROLLED, IN IRREGULARLY WOUND COILS, CONCRETE RE-INFORCING.
721320 .....	BARS AND RODS OF FREE-CUTTING NONALLOY STEEL, HOT-ROLLED, IN IRREGULARLY WOUND COILS.
721391 .....	BARS AND RODS, HOT-ROLLED, IN IRREGULARLY WOUND COILS, OF IRON OR NONALLOY STEEL, OF CIRCULAR CROSS-SECTION MEASURING LESS THAN 14MM IN DIAMETER, NESOI.
721399 .....	BARS AND RODS, HOT-ROLLED, IN IRREGULARLY WOUND COILS, OF IRON OR NONALLOY STEEL, N.E.S.O.I.
721550 .....	BARS AND RODS OF IRON OR NONALLOY STEEL, NOT FURTHER WORKED THAN COLD-FORMED OR COLD-FINISHED, N.E.S.O.I.
721610 .....	U, I OR H SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, LESS THAN 80 MM HIGH.
721621 .....	L SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, LESS THAN 80 MM HIGH.
721622 .....	T SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, LESS THAN 80 MM HIGH.
721631 .....	U SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, 80 MM OR MORE HIGH.
721632 .....	I SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, 80 MM OR MORE HIGH (STANDARD BEAMS).
721633 .....	H SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, 80 MM OR MORE HIGH.
721640 .....	L OR T SECTIONS OF IRON OR NONALLOY STEEL, HOT-WORKED, 80 MM OR MORE HIGH.
721650 .....	ANGLES, SHAPES AND SECTIONS NESOI OF IRON OR NONALLOY STEEL, HOT-WORKED.
721661 .....	ANGLES, SHAPES AND SECTIONS, IRON OR NONALLOY STEEL, NOT FURTHER WORKED THAN COLD-FORMED OR COLD-FINISHED, OBTAINED FROM FLAT-ROLLED PRODUCTS.
721669 .....	ANGLES, SHAPES AND SECTIONS, IRON OR NONALLOY STEEL, NOT FURTHER WORKED THAN COLD-FORMED OR COLD-FINISHED, NOT OBTAINED FROM FLAT-ROLLED PRODUCTS.
721691 .....	ANGLES, SHAPES AND SECTIONS, IRON OR NONALLOY STEEL, OTHER COLD-FORMED OR COLD-FINISHED FROM FLAT-ROLLED PRODUCTS.
721699 .....	ANGLES, SHAPES AND SECTIONS IRON OR NONALLOY STEEL NESOI.
721810 .....	STAINLESS STEEL INGOTS AND OTHER PRIMARY FORMS.
721891 .....	SEMIFINISHED PRODUCTS OF STAINLESS STEEL, RECTANGULAR (OTHER THAN SQUARE) CROSS-SECTION.
721899 .....	OTHER SEMIFINISHED PRODUCTS OF STAINLESS STEEL.
722230 .....	BARS AND RODS OF STAINLESS STEEL, NESOI.
722410 .....	INGOTS AND OTHER PRIMARY FORMS OF ALLOY STEEL (OTHER THAN STAINLESS) NESOI.
722490 .....	SEMIFINISHED PRODUCTS OF ALLOY STEEL (OTHER THAN STAINLESS) NESOI.
722519 .....	FLAT-ROLLED SILICON ELECTRICAL STEEL 600MM OR MORE WIDE, NOT GRAIN-ORIENTED.
722530 .....	FLAT-ROLLED ALLOY STEEL (OTHER THAN STAINLESS) IN COILS, 600 MM OR MORE WIDE, HOT-ROLLED, NESOI.
722599 .....	FLAT-ROLLED ALLOY STEEL NOT STAINLESS, 600 MM OR MORE WIDE, NESOI.
722691 .....	FLAT-ROLLED ALLOY STEEL (OTHER THAN STAINLESS) PRODUCTS, UNDER 600 MM WIDE, HOT-ROLLED, NESOI.
722810 .....	BARS AND RODS OF HIGH-SPEED STEEL NESOI.
722820 .....	BARS AND RODS OF SILICO-MANGANESE STEEL NESOI.
722830 .....	BARS AND RODS OF ALLOY STEEL (OTHER THAN STAINLESS), HOT-WORKED, NESOI.
722840 .....	BARS AND RODS OF ALLOY STEEL (OTHER THAN STAINLESS), FORGED, NESOI.
722850 .....	BARS AND RODS OF ALLOY STEEL (OTHER THAN STAINLESS), COLD-FORMED OR COLD-FINISHED, NESOI.
722860 .....	BARS AND RODS OF ALLOY STEEL (OTHER THAN STAINLESS), NESOI.
722870 .....	ANGLES, SHAPES AND SECTIONS OF ALLOY STEEL (OTHER THAN STAINLESS), NESOI.
722880 .....	HOLLOW DRILL BARS AND RODS OF ALLOY OR NONALLOY STEEL.
722990 .....	WIRE OF ALLOY STEEL NESOI.
730120 .....	WELDED ANGLES, SHAPES AND SECTIONS OF IRON OR STEEL.
730424 .....	CASING & TUBING USED IN DRILLING FOR OIL OR GAS, OTHER OF STAINLESS STEEL.
730539 .....	PIPES AND TUBES NESOI, EXTERNAL DIAMETER OVER 406.4 MM (16 IN.), OF IRON OR STEEL, WELDED NESOI.
730650 .....	PIPES, TUBES AND HOLLOW PROFILES NESOI, WELDED, OF CIRCULAR CROSS SECTION, OF ALLOY STEEL (OTHER THAN STAINLESS) NESOI.
730722 .....	PIPE OR TUBE FITTINGS, NESOI, STAINLESS STEEL THREADED ELBOWS, BENDS AND SLEEVES.
731100 .....	CONTAINERS FOR COMPRESSED OR LIQUEFIED GAS, OF IRON OR STEEL.
731412 .....	ENDLESS BANDS OF STAINLESS STEEL.
731824 .....	COTTERS AND COTTER PINS, OF IRON OR STEEL.
732020 .....	HELICAL SPRINGS OF IRON OR STEEL.
732290 .....	AIR HEATERS AND HOT AIR DISTRIBUTORS, NOT ELECTRICALLY HEATED, INCORPORATING A MOTOR-DRIVEN FAN OR BLOWER, AND PARTS THEREOF, OF IRON OR STEEL.
732429 .....	BATHS OF IRON OR STEEL, OTHER THAN CAST IRON.
740710 .....	BARS, RODS AND PROFILES OF REFINED COPPER.
740721 .....	BARS, RODS AND PROFILES OF COPPER-ZINC BASE ALLOYS (BRASS).
740729 .....	BARS, RODS AND PROFILES OF COPPER ALLOYS, NESOI.
740811 .....	WIRE OF REFINED COPPER, WITH A MAXIMUM CROSS SECTIONAL DIMENSION OVER 6 MM (.23 IN.).
740819 .....	WIRE OF REFINED COPPER, WITH A MAXIMUM CROSS SECTIONAL DIMENSION NOT OVER 6 MM (.23 IN.).

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740821 .....	WIRE OF COPPER-ZINC BASE ALLOYS (BRASS).
740822 .....	WIRE OF COPPER-NICKEL BASE ALLOYS (CUPRO-NICKEL) OR COPPER-NICKEL-ZINC BASE ALLOYS (NICKEL-SILVER).
740829 .....	WIRE OF COPPER ALLOYS, NESOI.
740911 .....	PLATES, SHEETS AND STRIP OF REFINED COPPER, OVER 0.15 MM THICK, IN COILS.
740919 .....	PLATES, SHEETS AND STRIP OF REFINED COPPER, OVER 0.15 MM THICK, NOT IN COILS.
740921 .....	PLATES, SHEETS AND STRIP OF COPPER-ZINC BASE ALLOYS (BRASS), OVER 0.15 MM THICK, IN COILS.
740929 .....	PLATES, SHEETS AND STRIP OF COPPER-ZINC BASE ALLOYS (BRASS), OVER 0.15 MM THICK, NOT IN COILS.
740931 .....	PLATES, SHEETS AND STRIP OF COPPER-TIN BASE ALLOYS (BRONZE), OVER 0.15 MM THICK, IN COILS.
740939 .....	PLATES, SHEETS AND STRIP OF COPPER-TIN BASE ALLOYS (BRONZE), OVER 0.15 MM THICK, NOT IN COILS.
740940 .....	PLATES, SHEETS AND STRIP OF COPPER-NICKEL BASE ALLOYS (CUPRO-NICKEL) OR COPPER-NICKEL-ZINC BASE ALLOYS (NICKEL SILVER), OVER 0.15 MM THICK.
740990 .....	PLATES, SHEETS AND STRIP OF COPPER ALLOYS NESOI, OVER 0.15 MM THICK.
741129 .....	TUBES AND PIPES OF COPPER ALLOYS NESOI.
741521 .....	WASHERS, INCLUDING SPRING WASHERS, OF COPPER.
750511 .....	NICKEL BARS, RODS AND PROFILES, NOT ALLOYED.
750512 .....	NICKLE BARS, RODS AND PROFILES, OF NICKLE ALLOYS.
750521 .....	NICKLE WIRE, NOT ALLOYED.
750522 .....	NICKLE WIRE, OF NICKLE ALLOYS.
750610 .....	NICKEL PLATES, SHEETS, STRIP AND FOIL, NOT ALLOYED.
750620 .....	NICKEL PLATES, SHEETS, STRIP AND FOIL, OF NICKLE ALLOYS.
750711 .....	NICKLE TUBES AND PIPES, NOT ALLOYED.
750712 .....	NICKLE TUBES AND PIPES, OF NICKLE ALLOYS.
750720 .....	NICKLE TUBE OR PIPE FITTINGS.
750810 .....	CLOTH, GRILL AND NETTING OF NICKEL WIRE.
750890 .....	OTHER ARTICLES OF NICKEL, NESOI.
760511 .....	ALUMINUM WIRE OF NONALLOYED ALUMINUM, WITH A MAXIMUM CROSS SECTIONAL DIMENSION OF OVER 7 MM.
760519 .....	ALUMINUM WIRE OF NONALLOYED ALUMINUM, WITH A MAXIMUM CROSS SECTIONAL DIMENSION OF 7 MM OR LESS.
760521 .....	ALUMINUM ALLOY WIRE, WITH A MAXIMUM CROSS SECTIONAL DIMENSION OF OVER 7 MM.
760529 .....	ALUMINUM ALLOY WIRE, WITH A MAXIMUM CROSS SECTIONAL DIMENSION OF 7 MM OR LESS.
760692 .....	ALUMINUM ALLOY PLATES, SHEETS OR STRIP, OVER 0.2 MM THICK, NESOI (OTHER THAN RECTANGULAR SQUARE SHAPES).
760720 .....	ALUMINUM FOIL, NOT OVER 0.2 MM THICK, BACKED.
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761100 .....	ALUMINUM TANKS, VATS AND SIMILAR PLAIN, UNFITTED CONTAINERS, OF A CAPACITY OVER 300 LITERS (79.30 GAL.).
* .....	* .....
761290 .....	ALUMINUM CASKS, DRUMS, CANS, BOXES AND SIMILAR PLAIN, UNFITTED CONTAINERS, OF A CAPACITY NOT OVER 300 LITERS (79.30 GAL.).
761300 .....	ALUMINUM CONTAINERS FOR COMPRESSED OR LIQUEFID GAS.
761610 .....	NAILS, TACKS, STAPLES (OTHER THAN IN STRIPS), SCREWS, BOLTS, NUTS, SCREW HOOKS, RIVETS AND SIMILAR ARTICLES, OF ALUMINUM.
780411 .....	LEAD SHEETS, STRIP AND FOIL NOT OVER 0.2 MM THICK.
780419 .....	LEAD PLATES, SHEETS, STRIP AND FOIL OVER 0.2 MM THICK.
780420 .....	LEAD POWDERS AND FLAKES.
790500 .....	ZINC PLATES, SHEETS, STRIP AND FOIL.
800110 .....	TIN, NOT ALLOYED, UNWROUGHT.
800120 .....	TIN ALLOYS, UNWROUGHT.
800300 .....	TIN BARS, RODS, PROFILES AND WIRE.
800700 .....	ARTICLES OF TIN, NESOI.
810110 .....	TUNGSTEN (WOLFRAM) POWDERS.
810210 .....	MOLYBDENUM POWDERS.
810294 .....	MOLYBDENUM, UNWROUGHT, INCLUDING BARS AND RODS OBTAINED SIMPLY BY SINTERING.
810295 .....	MOLYBDENUM BARS AND RODS, OTHER THAN THOSE OBTAINED SIMPLY BY SINTERING; MOLYBDENUM PROFILES, PLATES, SHEETS, STRIP AND FOIL.
810296 .....	MOLYBDENUM WIRE.
810297 .....	MOLYBDENUM WASTE AND SCRAP.
810299 .....	MOLYBDENUM AND ARTICLES THEREOF, NESOI.
810590 .....	COBALT AND ARTICLES THEREOF, NESOI.
810921 .....	UNWROUGHT ZIRCONIUM; POWDERS.
810929 .....	UNWROUGHT ZIRCONIUM; POWDERS.
810931 .....	ZIRCONIUM WASTE AND SCRAP.
810939 .....	ZIRCONIUM WASTE AND SCRAP.
810991 .....	ZIRCONIUM AND ARTICLES THEREOF, NESOI.
810999 .....	ZIRCONIUM AND ARTICLES THEREOF, NESOI.
820220 .....	BANDSAW BLADES, AND BASE METAL PARTS THEREOF.
* .....	* .....
830120 .....	LOCKS OF A KIND USED ON MOTOR VEHICLES, OF BASE METAL.
830170 .....	KEYS PRESENTED SEPARATELY FOR PADLOCKS OR LOCKS, OF BASE METAL.

HTS-6 Code	HTS description
830230 .....	MOUNTINGS, FITTINGS AND SIMILAR ARTICLES NESOI (EXCEPT HINGES), AND PARTS THEREOF, SUITABLE FOR MOTOR VEHICLES, OF BASE METAL.
830710 .....	FLEXIBLE TUBING, OF IRON OR STEEL.
830790 .....	FLEXIBLE TUBING, OF BASE METAL, OTHER THAN IRON OR STEEL.
830910 .....	CROWN CORKS (INCLUDING CROWN SEALS AND CAPS), AND PARTS THEREOF, OF BASE METAL.
830990 .....	STOPPERS, CAPS AND LIDS NESOI (NOT CROWN), CAPSULES FOR BOTTLES, BUNGS, SEALS AND OTHER PACKING ACCESSORIES, AND PARTS THEREOF, OF BASE METAL.
840110 .....	NUCLEAR REACTORS.
840120 .....	ISOTOPIC SEPARATION MACHINERY AND APPARATUS, AND PARTS THEREOF.
840130 .....	FUEL ELEMENTS (CARTRIDGES), NON-IRRADIATED, FOR NUCLEAR REACTORS, AND PARTS THEREOF.
840140 .....	PARTS OF NUCLEAR REACTORS.
840211 .....	WATERTUBE BOILERS WITH A STEAM PRODUCTION EXCEEDING 45 T PER HOUR.
* .....	* .....
840310 .....	CENTRAL HEATING BOILERS.
840390 .....	PARTS FOR CENTRAL HEATING BOILERS.
* .....	* .....
840610 .....	TURBINES, STEAM AND OTHER VAPOR TYPES, FOR MARINE PROPULSION.
* .....	* .....
840710 .....	AIRCRAFT SPARK-IGNITION RECIPROCATING OR ROTARY INTERNAL COMBUSTION PISTON ENGINES.
* .....	* .....
840731 .....	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, NOT OVER 50 CC CYLINDER CAPACITY.
840732 .....	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, OVER 50 BUT NOT OVER 250 CC CYLINDER CAPACITY.
840733 .....	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAIL OR TRAMWAY STOCK, OVER 250 BUT NOT OVER 1,000 CC CYLINDER CAPACITY.
840734 .....	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, OVER 1,000 CC CYLINDER CAPACITY.
840790 .....	SPARK-IGNITION RECIPROCATING OR ROTARY INTERNAL COMBUSTION PISTON ENGINES, NESOI.
* .....	* .....
840910 .....	PARTS FOR SPARK-IGNITION OR ROTARY INTERNAL COMBUSTION PISTON ENGINES OR COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES, FOR AIRCRAFT.
840991 .....	PARTS FOR USE WITH SPARK-IGNITION INTERNAL COMBUSTION PISTON ENGINES (INCLUDING ROTARY ENGINES), NESOI.
* .....	* .....
841011 .....	HYDRAULIC TURBINES AND WATER WHEELS, OF A POWER NOT EXCEEDING 1,000 KW.
841012 .....	HYDRAULIC TURBINES AND WATER WHEELS, OF A POWER EXCEEDING 1,000 KW BUT NOT EXCEEDING 10,000 KW.
841013 .....	HYDRAULIC TURBINES AND WATER WHEELS, OF A POWER EXCEEDING 10,000 KW.
* .....	* .....
841181 .....	GAS TURBINES, EXCEPT TURBOJETS AND TURBOPROPELLERS, OF A POWER NOT EXCEEDING 5,000 KW.
841182 .....	GAS TURBINES, EXCEPT TURBOJETS AND TURBOPROPELLERS, OF A POWER EXCEEDING 5,000 KW.
* .....	* .....
841199 .....	PARTS OF GAS TURBINES, NESOI (OTHER THAN PARTS FOR TURBOJETS OR TURBOPROPELLERS).
* .....	* .....
841231 .....	PNEUMATIC POWER ENGINES AND MOTORS, LINEAR ACTING (CYLINDERS).
* .....	* .....
841290 .....	PARTS FOR ENGINES AND MOTORS, NESOI.
* .....	* .....
841320 .....	HAND PUMPS, OTHER THAN PUMPS FITTED OR DESIGNED TO BE FITTED WITH A MEASURING DEVICE.
* .....	* .....
841340 .....	CONCRETE PUMPS.
* .....	* .....
841370 .....	CENTRIFUGAL PUMPS, NESOI.
* .....	* .....
841382 .....	LIQUID ELEVATORS.
841391 .....	PARTS OF PUMPS FOR LIQUIDS.
841392 .....	PARTS OF LIQUID ELEVATORS.



HTS-6 Code	HTS description
841420	HAND- OR FOOT-OPERATED AIR PUMPS.
841430	COMPRESSORS USED IN REFRIGERATING EQUIPMENT (INCLUDING AIR CONDITIONING).
841440	AIR COMPRESSORS MOUNTED ON A WHEELED CHASSIS FOR TOWING.
841451	FANS, TABLE, FLOOR, WALL, WINDOW, CEILING OR ROOF, WITH SELF-CONTAINED ELECTRIC MOTOR OF AN OUTPUT NOT EXCEEDING 125 W.
841459	FANS, NESOI.
841460	VENTILATING OR RECYCLING HOODS INCORPORATING A FAN, HAVING A MAXIMUM HORIZONTAL SIDE NOT EXCEEDING 120 CM.
841470	FILTERING OR PURIFYING MACHINERY AND APPARATUS FOR GASES, NESOI.
841480	AIR PUMPS AND AIR OR OTHER GAS COMPRESSORS, NESOI; VENTILATING OR RECYCLING HOODS INCORPORATING A FAN, NESOI.
841510	AIR CONDITIONING MACHINES, WINDOW OR WALL TYPES, SELF-CONTAINED OR "SPLIT-SYSTEM".
841581	AIR CONDITIONING MACHINES NESOI, INCORPORATING A REFRIGERATING UNIT AND VALVE FOR REVERSAL OF THE COOLING/HEAT CYCLE (REVERSIBLE HEAT PUMPS).
841582	AIR CONDITIONING MACHINES NESOI, INCORPORATING A REFRIGERATING UNIT, NESOI.
841590	PARTS, NESOI, OF AIR CONDITIONING MACHINES.
841710	INDUSTRIAL OR LABORATORY FURNACES AND OVENS, FOR THE HEAT TREATMENT OF ORES, PYRITES OR METALS, NONELECTRIC.
841780	INDUSTRIAL OR LABORATORY FURNACES AND OVENS, INCLUDING INCINERATORS, NONELECTRIC, NESOI.
841790	PARTS OF INDUSTRIAL OR LABORATORY FURNACES AND OVENS, INCLUDING PARTS OF INCINERATORS, NONELECTRIC.
841810	COMBINED REFRIGERATOR-FREEZERS FITTED WITH SEPARATE EXTERNAL DOORS.
841821	REFRIGERATORS, HOUSEHOLD, COMPRESSION TYPE.
841829	REFRIGERATORS, HOUSEHOLD TYPE, NESOI.
841830	FREEZERS, CHEST TYPE, CAPACITY NOT EXCEEDING 800 LITERS.
841840	FREEZERS, UPRIGHT TYPE, CAPACITY NOT EXCEEDING 900 LITERS.
841850	REFRIGERATING OR FREEZING CHESTS, DISPLAY COUNTERS, CABINETS, SHOWCASES AND SIMILAR EQUIPMENT, NESOI.
841891	FURNITURE DESIGNED TO RECEIVE REFRIGERATING OR FREEZING EQUIPMENT.
841899	PARTS OF REFRIGERATION OR FREEZING EQUIPMENT AND HEAT PUMPS, NESOI.
841911	INSTANTANEOUS GAS WATER HEATERS.
841912	INSTANTANEOUS OR STORAGE WATER HEATERS, EXCEPT INSTANTANEOUS GAS WATER HEATERS, NONELECTRIC.
841920	MEDICAL, SURGICAL OR LABORATORY STERILIZERS.
841933	DRYERS FOR AGRICULTURAL PRODUCTS.
841934	DRYERS FOR AGRICULTURAL PRODUCTS.
841935	DRYERS FOR WOOD, PAPER PULP, PAPER OR PAPERBOARD.
841939	DRYERS, NESOI.
841981	MACHINERY, PLANT OR EQUIPMENT FOR MAKING HOT DRINKS OR FOR COOKING OR HEATING FOOD.
842010	CALENDERING OR OTHER ROLLING MACHINES, OTHER THAN FOR METALS OR GLASS.
842112	CLOTHES-DRYERS, CENTRIFUGAL.
842121	WATER FILTERING OR PURIFYING MACHINERY AND APPARATUS.
842122	BEVERAGE FILTERING OR PURIFYING MACHINERY AND APPARATUS, OTHER THAN WATER.
842132	FILTERING OR PURIFYING MACHINERY AND APPARATUS FOR GASES, NESOI.
842211	DISHWASHING MACHINES, HOUSEHOLD TYPE.
842219	DISHWASHING MACHINES, EXCEPT HOUSEHOLD TYPE.
842220	MACHINERY FOR CLEANING OR DRYING BOTTLES OR OTHER CONTAINERS.

HTS-6 Code	HTS description
842230	MACHINERY FOR FILLING, CLOSING, SEALING, CAPSULING OR LABELING BOTTLES, CANS, BOXES OR OTHER CONTAINERS; MACHINERY FOR AERATING BEVERAGES.
842240	PACKING OR WRAPPING MACHINERY (INCLUDING HEAT-SHRINK WRAPPING MACHINERY), NESOI.
842290	PARTS FOR MACHINES FOR DISHWASHING, FOR CLEANING, FILLING ETC. CONTAINERS AND FOR PACKING AND WRAPPING; PARTS OF MACHINES FOR AERATING BEVERAGES.
842310	PERSONAL WEIGHING MACHINES, INCLUDING BABY SCALES; HOUSEHOLD SCALES.
842320	SCALES FOR CONTINUOUS WEIGHING OF GOODS ON CONVEYORS.
842330	CONSTANT-WEIGHT SCALES AND SCALES FOR DISCHARGING A PREDETERMINED WEIGHT OF MATERIAL INTO A BAG OR CONTAINER, INCLUDING HOPPER SCALES.
842381	WEIGHING MACHINERY, NESOI, HAVING A MAXIMUM WEIGHING CAPACITY NOT EXCEEDING 30 KG.
842382	WEIGHING MACHINERY, NESOI, HAVING A MAXIMUM WEIGHING CAPACITY EXCEEDING 30 KG BUT NOT EXCEEDING 5,000 KG.
842389	WEIGHING MACHINERY, NESOI, HAVING A MAXIMUM WEIGHING CAPACITY EXCEEDING 5,000 KG.
842390	WEIGHING MACHINE WEIGHTS OF ALL KINDS; PARTS OF WEIGHING MACHINERY.
*	*
842420	SPRAY GUNS AND SIMILAR APPLIANCES.
842430	STEAM OR SAND BLASTING MACHINES AND SIMILAR JET PROJECTING MACHINES.
842441	PORTABLE AGRICULTURAL OR HORTICULTURAL SPRAYERS, FOR PROJECTING, DISPERSING OR SPRAYING LIQUID OR POWDERS.
842449	AGRICULTURAL OR HORTICULTURAL SPRAYERS, OTHER THAN PORTABLE SPRAYERS.
842482	MECHANICAL APPLIANCES FOR AGRICULTURAL OR HORTICULTURAL USE FOR PROJECTING, DISPERSING OR SPRAYING LIQUIDS OR POWDERS, NESOI.
*	*
842519	PULLEY TACKLE AND HOISTS, OTHER THAN SKIP HOISTS OR HOISTS OF A KIND USED FOR RAISING VEHICLES, NOT POWERED BY ELECTRIC MOTOR.
*	*
842539	WINCHES AND CAPSTANS, NOT POWERED BY ELECTRIC MOTORS.
842541	BUILT-IN JACKING SYSTEMS OF A TYPE USED IN GARAGES.
842542	JACKS AND HOISTS, HYDRAULIC, EXCEPT BUILT-IN JACKING SYSTEMS USED IN GARAGES.
842549	JACKS, NESOI; HOISTS OF A KIND USED FOR RAISING VEHICLES, NESOI.
*	*
842810	PASSENGER OR FREIGHT ELEVATORS OTHER THAN CONTINUOUS ACTION; SKIP HOISTS.
*	*
842840	ESCALATORS AND MOVING WALKWAYS.
842860	TELEFERICS, CHAIR LIFTS, SKI DRAGLINES; TRACTION MECHANISMS FOR FUNICULARS.
*	*
843020	SNOWPLOWS AND SNOWBLOWERS.
843031	COAL OR ROCK CUTTERS AND TUNNELING MACHINERY, SELF-PROPELLED.
*	*
843041	BORING OR SINKING MACHINERY, NESOI, SELF-PROPELLED.
*	*
843061	TAMPING OR COMPACTING MACHINERY, NOT SELF-PROPELLED.
*	*
843110	PARTS FOR PULLEY TACKLE AND HOISTS (OTHER THAN SKIP HOISTS), WINCHES, CAPSTANS AND JACKS.
*	*
843131	PARTS FOR PASSENGER OR FREIGHT ELEVATORS OTHER THAN CONTINUOUS ACTION, SKIP HOISTS OR ESCALATORS.
*	*
843142	BULLDOZER OR ANGLEDOZER BLADES.
843143	PARTS FOR BORING OR SINKING MACHINERY, NESOI.
*	*
843210	PLOWS FOR SOIL PREPARATION OR CULTIVATION.
843221	DISC HARROWS.
843229	HARROWS (EXCEPT DISC), SCARIFIERS, CULTIVATORS, WEEDERS AND HOES.
843231	NO-TILL DIRECT SEEDERS, PLANTERS AND TRANSPLANTERS.
843239	SEEDERS, PLANTERS AND TRANSPLANTERS, NESOI.
843241	MANURE SPREADERS.
843242	FERTILIZER DISTRIBUTORS.
843280	AGRICULTURAL, HORTICULTURAL OR FORESTRY MACHINERY FOR SOIL PREPARATION OR CULTIVATION, NESOI; LAWN OR SPORTS GROUND ROLLERS.
843290	PARTS FOR AGRICULTURAL, HORTICULTURAL OR FORESTRY MACHINERY (FOR SOIL PREPARATION OR CULTIVATION) AND PARTS FOR LAWN OR GROUND ROLLERS.

HTS-6 Code	HTS description
843311	MOWERS FOR LAWNS, PARKS OR SPORTS GROUNDS, POWERED WITH THE CUTTING DEVICE ROTATING IN A HORIZONTAL PLANE.
843319	MOWERS FOR LAWNS, PARKS OR SPORTS GROUNDS, EXCEPT POWERED WITH THE CUTTING DEVICE ROTATING IN A HORIZONTAL PLANE.
843320	MOWERS, NESOI, INCLUDING CUTTER BARS FOR TRACTOR MOUNTING.
843330	HAYING MACHINES, OTHER THAN MOWERS.
843340	STRAW OR FODDER BALERS, INCLUDING PICK-UP BALERS.
843351	COMBINE HARVESTER-THRESHERS.
843352	THRESHING MACHINERY, EXCEPT COMBINE HARVESTER-THRESHERS.
843353	ROOT OR TUBER HARVESTING MACHINES.
843359	HARVESTING MACHINERY, NESOI.
843360	MACHINES FOR CLEANING, SORTING OR GRADING EGGS, FRUIT OR OTHER AGRICULTURAL PRODUCE.
843390	PARTS FOR HARVESTING OR THRESHING MACHINERY, MOWERS, BALERS AND MACHINES FOR CLEANING, SORTING OR GRADING EGGS, FRUIT OR OTHER AGRICULTURAL PRODUCE.
843410	MILKING MACHINES.
843420	DAIRY MACHINERY.
843490	PARTS OF MILKING MACHINES AND DAIRY MACHINERY.
843510	PRESSES, CRUSHERS AND SIMILAR MACHINERY USED IN THE MANUFACTURE OF WINES, CIDER, FRUIT JUICES OR SIMILAR BEVERAGES.
843590	PARTS OF PRESSES, CRUSHERS AND SIMILAR MACHINERY, USED IN THE MANUFACTURE OF WINE, CIDER, FRUIT JUICES OR SIMILAR BEVERAGES.
843610	MACHINERY FOR PREPARING ANIMAL FEEDS.
843621	POULTRY INCUBATORS AND BROODERS.
843629	POULTRY-KEEPING MACHINERY (OTHER THAN INCUBATORS AND BROODERS).
843680	AGRICULTURAL, HORTICULTURAL, FORESTRY, BEE-KEEPING MACHINERY, INCLUDING GERMINATION PLANT FITTED WITH MECHANICAL OR THERMAL EQUIPMENT, NESOI.
843691	PARTS OF POULTRY-KEEPING MACHINERY OR POULTRY INCUBATORS AND BROODERS.
843699	PARTS OF AGRICULTURAL, HORTICULTURAL, FORESTRY, BEE-KEEPING MACHINERY, INCLUDING GERMINATION PLANT FITTED WITH MECHANICAL OR THERMAL EQUIPMENT, NESOI.
843710	MACHINES FOR CLEANING, SORTING OR GRADING SEED, GRAIN OR DRIED LEGUMINOUS VEGETABLES.
843780	MACHINERY USED IN THE MILLING INDUSTRY OR FOR THE WORKING OF CEREALS OR DRIED LEGUMINOUS VEGETABLES, OTHER THAN FARM TYPE MACHINERY.
843790	PARTS OF MACHINES (NONFARM) USED TO CLEAN, SORT OR GRADE SEED, GRAIN OR DRIED LEGUMINOUS VEGETABLES OR TO WORK CEREALS OR DRIED LEGUMINOUS VEGETABLES.
843810	BAKERY MACHINERY AND MACHINERY FOR THE MANUFACTURE OF MACARONI, SPAGHETTI OR SIMILAR PRODUCTS.
843820	MACHINERY FOR THE MANUFACTURE OF CONFECTIONERY, COCOA OR CHOCOLATE.
843830	MACHINERY FOR SUGAR MANUFACTURE.
843840	BREWERY MACHINERY.
843850	MACHINERY FOR THE PREPARATION OF MEAT OR POULTRY.
843860	MACHINERY FOR THE PREPARATION OF FRUITS, NUTS OR VEGETABLES.
843880	MACHINERY FOR THE INDUSTRIAL PREPARATION OR MANUFACTURE OF FOOD OR DRINK (NOT FOR THE EXTRACTION ETC. OF ANIMAL OR FIXED VEGETABLE FATS OR OILS) NESOI.
843890	PARTS OF MACHINERY FOR THE INDUSTRIAL PREPARATION OR MANUFACTURE OF FOOD OR DRINK, NESOI.
*	*
843920	MACHINERY FOR MAKING PAPER OR PAPERBOARD.
*	*
843991	PARTS OF MACHINERY FOR MAKING PULP OF FIBROUS CELLULOSIC MATERIAL.
843999	PARTS FOR MACHINERY MAKING OR FINISHING PAPER OR PAPERBOARD.
844010	BOOKBINDING MACHINERY, INCLUDING BOOK-SEWING MACHINES.
*	*
844110	CUTTING MACHINES FOR PAPER AND PAPERBOARD.
844120	MACHINES FOR MAKING PAPER BAGS, SACKS OR ENVELOPES.
*	*
844140	MACHINES FOR MOLDING ARTICLES IN PAPER PULP, PAPER OR PAPERBOARD.
844180	MACHINERY FOR MAKING UP PAPER PULP, PAPER OR PAPERBOARD, NESOI.
844190	PARTS OF MACHINERY FOR MAKING UP PAPER PULP, PAPER OR PAPERBOARD, INCLUDING PARTS OF CUTTING MACHINES.
*	*
844250	PRINTING TYPE, BLOCKS, PLATES, CYLINDERS AND OTHER PRINTING COMPONENTS; BLOCKS, PLATES, CYLINDERS AND LITHOGRAPHIC STONES, PREPARED FOR PRINT PURPOSES.
*	*
844312	OFFSET PRINTING MACHINERY, SHEET-FED, OFFICE TYPE (SHEET SIZE NOT EXCEEDING 22X36 CM).
*	*
844314	LETTERPRESS PRINTING MACHINERY, REEL FED, EXCLUDING FLEXOGRAPHIC PRINTING.

HTS-6 Code	HTS description
844331	MACHINES WHICH PERFORM TWO OR MORE OF THE FUNCTIONS OF PRINTING, COPYING OR FAX TRANSMISSION, CAPABLE OF CONNECTING TO AN ADP MACHINE OR TO A NETWORK.
844332	PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, NOT COMBINED, CAPABLE OF CONNECTING TO AN AUTOMATIC DATA PROCESSING MACHINE OR TO A NETWORK.
844339	PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, NOT COMBINED, NESOI.
844399	PARTS AND ACCESSORIES OF PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, NESOI.
844511	CARDING MACHINES FOR PREPARING TEXTILE FIBERS.
844512	COMBING MACHINES FOR PREPARING TEXTILE FIBERS.
844513	DRAWING OR ROVING MACHINES FOR PREPARING TEXTILE FIBERS.
844519	MACHINES FOR PREPARING TEXTILE FIBERS, NESOI.
844520	TEXTILE SPINNING MACHINES.
844530	TEXTILE DOUBLING OR TWISTING MACHINES.
844540	TEXTILE WINDING (INCLUDING WEFT WINDING) OR REELING MACHINES.
844590	MACHINERY FOR PRODUCING TEXTILE YARNS NESOI; MACHINES FOR PREPARING TEXTILE YARNS FOR WEAVING MACHINES (LOOMS), KNITTING AND STICH-BONDING MACHINES.
844610	WEAVING MACHINES (LOOMS) FOR WEAVING FABRICS OF A WIDTH NOT EXCEEDING 30 CM.
844630	WEAVING MACHINES (LOOMS) FOR WEAVING FABRICS OF A WIDTH EXCEEDING 30 CM, SHUTTLELESS TYPE.
844711	CIRCULAR KNITTING MACHINES WITH CYLINDER DIAMETER NOT EXCEEDING 165 MM.
844712	CIRCULAR KNITTING MACHINES WITH CYLINDER DIAMETER EXCEEDING 165 MM.
844720	FLAT KNITTING MACHINES; STITCH-BONDING MACHINES.
844790	KNITTING MACHINES, NESOI, AND MACHINES FOR MAKING GIMPED YARN, TULLE, LACE, EMBROIDERY, TRIMMINGS, BRAID OR NET AND MACHINES FOR TUFTING.
844831	CARD CLOTHING.
844832	PARTS OF MACHINES FOR PREPARING TEXTILE FIBERS, OTHER THAN CARD CLOTHING.
844859	PARTS AND ACCESSORIES NESOI FOR MACHINES FOR KNITTING, STITCH-BONDING, MAKING GIMPED YARN, TULLE, LACE, EMBROIDERY, TRIMMING, BRAID, NET OR TUFTING.
844900	MACHINERY FOR THE MANUFACTURE OR FINISHING OF FELT OR NONWOVENS IN THE PIECE OR IN SHAPES, OR FOR MAKING OR BLOCKING FELT HATS; PARTS THEREOF.
845011	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, FULLY AUTOMATIC, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845012	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, NOT FULLY AUTOMATIC, WITH A BUILT-IN CENTRIFUGAL DRYER, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845019	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG, NESOI.
845020	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, WITH A DRY LINEN CAPACITY EXCEEDING 10 KG.
845090	PARTS OF HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, INCLUDING PARTS OF MACHINES WHICH BOTH WASH AND DRY.
845121	DRYING MACHINES (EXCEPT CENTRIFUGAL TYPE) FOR TEXTILE YARNS, FABRICS OR MADE UP TEXTILE ARTICLES, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845140	WASHING, BLEACHING OR DYEING MACHINES FOR TEXTILES YARNS, FABRICS OR MADE UP TEXTILES ARTICLES.
845150	MACHINES FOR REELING, UNREELING, FOLDING, CUTTING OR PINKING TEXTILE FABRICS.
845180	MACHINERY FOR FINISHING, COATING OR IMPREGNATING TEXTILES YARNS, FABRICS OR MADE UP TEXTILE ARTICLES; MACHINES FOR APPLYING PASTE TO BASE FABRICS ETC.
845210	SEWING MACHINES OF THE HOUSEHOLD TYPE.
845221	SEWING MACHINES OTHER THAN OF THE HOUSEHOLD TYPE, AUTOMATIC UNITS.
845229	SEWING MACHINES OTHER THAN OF THE HOUSEHOLD OR AUTOMATIC TYPES.
845290	PARTS FOR SEWING MACHINES, NESOI.
845320	MACHINERY FOR MAKING OR REPAIRING FOOTWEAR.
845430	CASTING MACHINES USED IN METALLURGY OR METAL FOUNDRIES.

HTS-6 Code	HTS description
845510 .....	METAL-ROLLING TUBE MILLS.
845521 .....	METAL-ROLLING HOT OR COMBINATION HOT AND COLD ROLLING MILLS, EXCEPT TUBE MILLS.
845590 .....	PARTS FOR METAL-ROLLING MILLS, EXCEPT ROLLS FOR ROLLING MILLS.
845611 .....	MACHINE TOOLS FOR WORKING ANY MATERIAL BY REMOVAL OF MATERIAL OPERATED BY LASER.
845612 .....	MACHINE TOOLS FOR WORKING ANY MATERIAL BY REMOVAL OF MATERIAL OPERATED BY OTHER LIGHT OR PHOTON BEAM PROCESSES.
845630 .....	MACHINE TOOLS FOR WORKING ANY MATERIAL BY REMOVAL OF MATERIAL, BY ELECTRO-DISCHARGE PROCESSES.
845650 .....	MACHINE TOOLS FOR WORKING ANY MATERIAL BY REMOVAL OF MATERIAL, WATER-JET CUTTING MACHINES.
845720 .....	UNIT CONSTRUCTION MACHINES (SINGLE STATION) FOR WORKING METAL.
845929 .....	DRILLING MACHINES FOR REMOVING METAL NESOI, NOT NUMERICALLY CONTROLLED.
845939 .....	BORING-MILLING MACHINES FOR REMOVING METAL NESOI, NOT NUMERICALLY CONTROLLED.
845951 .....	MILLING MACHINES, KNEE TYPE, FOR REMOVING METAL, NUMERICALLY CONTROLLED.
845959 .....	MILLING MACHINES, KNEE TYPE, FOR REMOVING METAL, NOT NUMERICALLY CONTROLLED.
845969 .....	MILLING MACHINES, NOT KNEE TYPE, FOR REMOVING METAL, NOT NUMERICALLY CONTROLLED.
846510 .....	MACHINES FOR WORKING WOOD, HARD RUBBER, ETC., WHICH CARRY OUT DIFFERENT MACHINE OPERATIONS WITHOUT TOOL CHANGES BETWEEN OPERATIONS.
846591 .....	SAWING MACHINES FOR WORKING WOOD, CORK, BONE, HARD RUBBER, HARD PLASTICS OR SIMILAR HARD MATERIALS.
846592 .....	PLANING, MILLING OR MOLDING (BY CUTTING) MACHINES FOR WORKING WOOD, CORK, BONE, HARD RUBBER, HARD PLASTICS OR SIMILAR HARD MATERIALS.
846595 .....	DRILLING OR MORTISING MACHINES FOR WORKING WOOD, CORK, BONE, HARD RUBBER, HARD PLASTICS OR SIMILAR HARD MATERIALS.
846599 .....	MACHINE TOOLS (ALSO THOSE FOR NAILING, STAPLING, GLUEING, ETC.) FOR WORKING WOOD, CORK, BONE, HARD RUBBER, HARD PLASTICS OR SIMILAR MATERIALS, NESOI.
846630 .....	DIVIDING HEADS AND OTHER SPECIAL ATTACHMENTS FOR MACHINE TOOLS.
846711 .....	PNEUMATIC TOOLS FOR WORKING IN THE HAND, ROTARY TYPE (INCLUDING COMBINED ROTARY-PERCUSSION).
846719 .....	PNEUMATIC TOOLS FOR WORKING IN THE HAND, EXCEPT ROTARY TYPE
846721 .....	DRILLS WITH SELF-CONTAINED ELECTRIC MOTORS, FOR WORKING IN THE HAND.
846722 .....	SAWS WITH SELF-CONTAINED ELECTRIC MOTORS, FOR WORKING IN THE HAND.
846729 .....	TOOLS FOR WORKING IN THE HAND, WITH SELF-CONTAINED ELECTRIC MOTORS, NESOI.
846781 .....	CHAIN SAWS, SELF-CONTAINED NONELECTRIC MOTOR, HAND-DIRECTED.
846789 .....	TOOLS FOR WORKING IN THE HAND, WITH SELF-CONTAINED NONELECTRIC MOTOR, NESOI.
846791 .....	PARTS OF CHAIN SAWS.
846792 .....	PARTS OF PNEUMATIC TOOLS FOR WORKING IN THE HAND.
846799 .....	PARTS OF TOOLS WITH SELF-CONTAINED NONELECTRIC MOTOR, FOR WORKING IN THE HAND, NESOI.
847010 .....	ELECTRONIC CALCULATORS CAPABLE OF OPERATION WITHOUT AN EXTERNAL SOURCE OF POWER.
847021 .....	ELECTRONIC CALCULATING MACHINES, NESOI, INCORPORATING A PRINTING DEVICE.
847029 .....	ELECTRONIC CALCULATING MACHINES, NESOI, NOT INCORPORATING A PRINTING DEVICE.
847030 .....	CALCULATING MACHINES, EXCEPT ELECTRONIC.
847050 .....	CASH REGISTERS.
847090 .....	POSTAGE-FRANKING MACHINES, TICKET-ISSUING MACHINES AND SIMILAR MACHINES, INCORPORATING A CALCULATING DEVICE, NESOI.

HTS-6 Code	HTS description
847130 .....	PORTABLE DIGTL AUTOMATIC DATA PROCESSING MACHINES, WEIGHT NOT MORE THAN 10 KG, CONSISTING OF AT LEAST A CENTRAL PROCESSING UNIT, KEYBOARD & A DISPLAY.
847141 .....	DIGITAL ADP MACHINES COMPRISING IN SAME HOUSING AT LEAST A CENTRAL PROCESSING UNIT AND AN INPUT AND OUTPUT UNIT, WHETHER OR NOT COMBINED, N.E.S.O.I.
847149 .....	DIGITAL AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF PRESENTED IN THE FORM OF SYSTEMS, N.E.S.O.I.
847150 .....	DIGITAL PROCESSING UNITS OTHER THAN THOSE OF 8471.41 AND 8471.49, N.E.S.O.I.
847160 .....	AUTOMATIC DATA PROCESSING INPUT OR OUTPUT UNITS, WHETHER OR NOT CONTAINING STORAGE UNITS IN THE SAME HOUSING, N.E.S.O.I.
847170 .....	AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I.
847180 .....	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.
847190 .....	AUTOMATIC DATA PROCESSING UNITS THEREOF; MAGNETIC/OPTICAL READERS, MACH FOR TRANSCRIBING DATA TO DATA MEDIA IN CODED FORM & MACH FOR PROC DATA, NESOI.
* .....	* .....
847290 .....	OFFICE MACHINES NESOI (INCLUDING AUTOMATIC BANKNOTE DISPENSERS, COIN-SORTING MACHINES, PENCIL-SHARPENING MACHINES, PERFORATING OR STAPLING MACHINES).
* .....	* .....
847329 .....	PARTS AND ACCESSORIES FOR CASH REGISTERS AND MACHINES FOR ACCOUNTING, POSTAGE-FRANKING, TICKET-ISSUING AND SIMILAR MACHINES WITH A CALCULATING DEVICE.
* .....	* .....
847340 .....	PARTS AND ACCESSORIES FOR OFFICE MACHINES, NESOI (FOR EXAMPLE, DUPLICATING MACHINES, ADDRESSING MACHINES, STAPLING MACHINES, ETC.).
847350 .....	PARTS AND ACCESSORIES EQUALLY SUITABLE FOR USE WITH MACHINES OF TWO OR MORE OF THE HEADINGS 8469 TO 8472.
* .....	* .....
847420 .....	MACHINES FOR CRUSHING OR GRINDING EARTH, STONE, ORE OR OTHER MINERAL SUBSTANCES, IN SOLID FORM.
* .....	* .....
847432 .....	MACHINES FOR MIXING MINERAL SUBSTANCES WITH BITUMEN.
* .....	* .....
847490 .....	PARTS OF MACHINERY FOR SORTING, SCREENING, SEPARATING AND KNEADING OR PROCESSING, ETC. EARTH, STONE, ORES OR OTHER MINERAL SUBSTANCES IN SOLID FORM.
847510 .....	MACHINES FOR ASSEMBLING ELECTRIC OR ELECTRONIC LAMPS, TUBES OR FLASHBULBS, IN GLASS ENVELOPES.
* .....	* .....
847621 .....	AUTOMATIC BEVERAGE VENDING MACHINES INCORPORATING HEATING OR REFRIGERATING DEVICES.
847629 .....	AUTOMATIC BEVERAGE VENDING MACHINES NOT INCORPORATING HEATING OR REFRIGERATING DEVICES.
847681 .....	AUTOMATIC GOOGS-VENDING MACHINES INCORPORATING HEATING OR REFRIGERATING DEVICES, NESOI.
847689 .....	AUTOMATIC GOODS-VENDING MACHINES NOT INCORPORATING HEATING OR REFRIGERATING DEVICES, NESOI.
847690 .....	PARTS OF AUTOMATIC VENDING MACHINES.
847710 .....	INJECTION-MOLDING MACHINES FOR WORKING RUBBER OR PLASTICS.
847720 .....	EXTRUDERS FOR WORKING RUBBER OR PLASTICS.
* .....	* .....
847780 .....	MACHINERY FOR WORKING RUBBER OR PLASTICS OR FOR THE MANUFACTURE OF PRODUCTS FROM THESE MATERIALS, NESOI.
* .....	* .....
847810 .....	MACHINERY FOR PREPARING OR MAKING UP TOBACCO, NESOI.
847890 .....	PARTS OF MACHINERY, NESOI, FOR PREPARING OR MAKING UP TOBACCO.
* .....	* .....
847920 .....	MACHINERY FOR THE EXTRACTION OR PREPARATION OF ANIMAL OR FIXED VEGETABLE FATS OR OILS.
* .....	* .....
847940 .....	ROPE OR CABLE-MAKING MACHINES.
* .....	* .....
847960 .....	EVAPORATIVE AIR COOLERS.
847971 .....	PASSENGER BOARDING BRIDGES OF A KIND USED IN AIRPORTS.
847979 .....	PASSENGER BOARDING BRIDGES, OTHER THAN THOSE OF A KIND USED IN AIRPORTS.
* .....	* .....
847983 .....	MACHINES AND MECHANICAL APPLIANCES HAVING INDIVIDUAL FUNCTIONS, NESOI.
* .....	* .....
848010 .....	MOLDING BOXES FOR METAL FOUNDRY.

HTS-6 Code	HTS description
848041	MOLDS FOR METAL OR METAL CARBIDES, INJECTION OR COMPRESSION TYPES.
848049	MOLDS FOR METAL OR METAL CARBIDES, OTHER THAN INJECTION OR COMPRESSION TYPES.
848050	MOLDS FOR GLASS.
848071	MOLDS FOR RUBBER OR PLASTICS, INJECTION OR COMPRESSION TYPES.
848079	MOLDS FOR RUBBER OR PLASTICS, OTHER THAN INJECTION OR COMPRESSION TYPES.
848180	TAPS, COCKS, VALVES AND SIMILAR APPLIANCES FOR PIPES, VATS OR THE LIKE, INCLUDING THERMOSTATICALLY CONTROLLED VALVES, NESOI.
848190	PARTS FOR TAPS, COCKS, VALVES AND SIMILAR APPLIANCES FOR PIPES, VATS OR THE LIKE, INCLUDING PRESSURE REDUCING AND THERMOSTATICALLY CONTROLLED VALVES.
848510	SHIPS' OR BOATS' PROPELLERS AND BLADES THEREFOR.
848580	MACHINES AND MECHANICAL APPLIANCES HAVING INDIVIDUAL FUNCTIONS, NESOI.
850110	ELECTRIC MOTORS OF AN OUTPUT NOT EXCEEDING 37.5 W.
850132	DC MOTORS NESOI AND GENERATORS OF AN OUTPUT EXCEEDING 750 W BUT NOT EXCEEDING 75 KW.
850134	DC MOTORS NESOI AND GENERATORS OF AN OUTPUT EXCEEDING 375 KW.
850140	AC MOTORS NESOI, SINGLE-PHASE.
850151	AC MOTORS NESOI, MULTI-PHASE, OF AN OUTPUT NOT EXCEEDING 750 W.
850152	AC MOTORS NESOI, MULTI-PHASE, OF AN OUTPUT EXCEEDING 750 W BUT NOT EXCEEDING 75 KW.
850171	DC MOTORS NESOI AND GENERATORS OF AN OUTPUT NOT EXCEEDING 750 W.
850172	DC MOTORS NESOI AND GENERATORS OF AN OUTPUT NOT EXCEEDING 750 W.
850180	AC GENERATORS (ALTERNATORS), OF AN OUTPUT NOT EXCEEDING 75 KVA.
850410	BALLASTS FOR DISCHARGE LAMPS OR TUBES.
850421	LIQUID DIELECTRIC TRANSFORMERS HAVING A POWER HANDLING CAPACITY NOT EXCEEDING 650 KVA.
850422	LIQUID DIELECTRIC TRANSFORMERS HAVING A POWER HANDLING CAPACITY EXCEEDING 650 KVA BUT NOT EXCEEDING 10,000 KVA.
850423	LIQUID DIELECTRIC TRANSFORMERS HAVING A POWER HANDLING CAPACITY EXCEEDING 10,000 KVA.
850431	ELECTRICAL TRANSFORMERS NESOI, HAVING A POWER HANDLING CAPACITY NOT EXCEEDING 1 KVA.
850440	ELECTRICAL STATIC CONVERTERS; POWER SUPPLIES FOR ADP MACHINES OR UNITS OF 8471.
850450	ELECTRICAL INDUCTORS NESOI.
850490	PARTS FOR ELECTRICAL TRANSFORMERS, STATIC CONVERTERS AND INDUCTORS.
850519	PERMANENT MAGNETS AND ARTICLES INTENDED TO BECOME PERMANENT MAGNETS AFTER MAGNETIZATION, MADE OF MATERIALS OTHER THAN METAL.
850610	PRIMARY CELLS AND PRIMARY BATTERIES, MANGANESE DIOXIDE.
850630	PRIMARY CELLS AND PRIMARY BATTERIES, MERCURIC OXIDE.
850640	PRIMARY CELLS AND PRIMARY BATTERIES, SILVER OXIDE.
850650	PRIMARY CELLS AND PRIMARY BATTERIES, LITHIUM.
850680	PRIMARY CELLS AND PRIMARY BATTERIES, N.E.S.O.I.
850750	NICKEL-METAL HYDRIDE BATTERIES.
850760	LITHIUM ION BATTERIES.
850780	STORAGE BATTERIES NESOI.
850790	PARTS OF ELECTRIC STORAGE BATTERIES, INCLUDING SEPARATORS THEREFOR.
850811	VACUUM CLEANERS WITH SELF-CONTAINED ELECTRIC MOTOR, OF A POWER LT=1500 W AND HAVING A DUST BAG OR OTHER RECEPTACLE CAPACITY LT=20 L.
850819	VACUUM CLEANERS WITH SELF-CONTAINED ELECTRIC MOTOR, NESOI.
850860	VACUUM CLEANERS WITHOUT SELF-CONTAINED ELECTRIC MOTOR.



HTS-6 Code	HTS description
850870 .....	PARTS OF VACUUM CLEANERS.
850940 .....	ELECTROMECHANICAL DOMESTIC FOOD GRINDERS, PROCESSORS AND MIXERS, AND FRUIT OR VEGETABLE JUICE EXTRACTORS, WITH SELF-CONTAINED ELECTRIC MOTOR.
850980 .....	ELECTROMECHANICAL DOMESTIC APPLIANCES, WITH SELF-CONTAINED ELECTRIC MOTOR, NESOI.
850990 .....	PARTS OF ELECTROMECHANICAL DOMESTIC APPLIANCES WITH SELF-CONTAINED ELECTRIC MOTOR.
851010 .....	ELECTRIC SHAVERS, WITH SELF-CONTAINED ELECTRIC MOTOR.
851020 .....	ELECTRIC HAIR CLIPPERS, WITH SELF-CONTAINED ELECTRIC MOTOR.
851030 .....	HAIR-REMOVING APPLIANCES, WITH SELF-CONTAINED ELECTRIC MOTOR.
851090 .....	PARTS OF ELECTRIC SHAVERS AND HAIR CLIPPERS WITH SELF-CONTAINED ELECTRIC MOTOR.
* .....	* .....
851210 .....	ELECTRICAL LIGHTING OR VISUAL SIGNALING EQUIPMENT FOR USE ON BICYCLES.
* .....	* .....
851230 .....	ELECTRICAL SOUND SIGNALING EQUIPMENT USED FOR CYCLES OR MOTOR VEHICLES.
851240 .....	ELECTRICAL WINDSHIELD WIPERS, DEFROSTERS AND DEMISTERS USED FOR CYCLES OR MOTOR VEHICLES.
* .....	* .....
851310 .....	PORTABLE ELECTRIC LAMPS, BATTERY OR MAGNETO POWERED, NESOI.
851390 .....	PARTS FOR PORTABLE ELECTRIC LAMPS, BATTERY OR MAGNETO POWERED, NESOI.
* .....	* .....
851440 .....	INDUSTRIAL OR LABORATORY INDUCTION OR DIELECTION HEATING EQUIPMENT, NESOI.
* .....	* .....
851531 .....	ELECTRIC MACHINES AND APPARATUS FOR ARC (INCLUDING PLAZMA ARC) WELDING OF METALS, FULLY OR PARTLY AUTOMATIC.
851539 .....	ELECTRIC MACHINES AND APPARATUS FOR ARC (INCLUDING PLAZMA ARC) WELDING OF METALS, OTHER THAN FULLY OR PARTLY AUTOMATIC.
851580 .....	ELECTRIC, LASER, ULTRASONIC ETC. BRAZING OR WELDING MACHINES NESOI; ELECTRIC MACHINES FOR HOT SPRAYING OF METALS OR SINTERED METAL CARBIDES, NESOI.
851590 .....	PARTS FOR ELECTRIC LASER, ULTRASONIC ETC. WELDING ETC. MACHINES; PARTS FOR ELECTRIC MACHINES FOR HOT SPRAYING OF METALS OR SINTERED METAL CARBIDES.
851610 .....	ELECTRIC INSTANTANEOUS OR STORAGE WATER HEATERS AND IMMERSION HEATERS.
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851629 .....	ELECTRIC SPACE HEATING APPARATUS NESOI AND ELECTRIC SOIL HEATING APPARATUS.
851631 .....	ELECTRIC HAIR DRYERS.
851632 .....	ELECTROTHERMIC HAIRDRESSING APPARATUS OTHER THAN HAIR DRYERS.
851633 .....	ELECTRIC HAND-DRYING APPARATUS.
851640 .....	ELECTRIC FLATIRONS.
851650 .....	MICROWAVE OVENS.
851660 .....	ELECTRIC OVENS, COOKING STOVES, RANGES, COOKING PLATES, BOILING RINGS, GRILLERS AND ROASTERS, NESOI.
851671 .....	ELECTRIC COFFEE OR TEA MAKERS.
851672 .....	ELECTRIC TOASTERS.
851679 .....	ELECTROTHERMIC DOMESTIC APPLIANCES, NESOI.
* .....	* .....
851690 .....	PARTS FOR ELECTRIC WATER HEATERS, SPACE HEATERS, HAIRDRESSING APPARATUS, FLAT IRONS, STOVES, OVENS, COFFEE OR TEA MAKERS, TOASTERS, ETC.
851711 .....	LINE TELEPHONE SETS WITH CORDLESS HANDSETS.
851713 .....	TELEPHONES FOR CELLULAR NETWORKS OR FOR OTHER WIRELESS NETWORKS.
851714 .....	TELEPHONES FOR CELLULAR NETWORKS OR FOR OTHER WIRELESS NETWORKS.
851718 .....	TELEPHONE SETS, NESOI.
851761 .....	BASE STATIONS.
851762 .....	MACHINES FOR THE RECEPTION, CONVERSION AND TRANSMISSION OR REGENERATION OF VOICE, IMAGES OR OTHER DATA, INCLUDING SWITCHING AND ROUTING APPARATUS.
851769 .....	APPARATUS FOR THE TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA, INCLUDING SWITCHING AND ROUTING APPARATUS, NESOI.
* .....	* .....
851810 .....	MICROPHONES AND STANDS THEREFOR.
851821 .....	SINGLE LOUDSPEAKERS, MOUNTED IN THEIR ENCLOSURES.
851822 .....	MULTIPLE LOUDSPEAKERS, MOUNTED IN SAME ENCLOSURE.
851829 .....	LOUDSPEAKERS, NESOI.
851830 .....	HEADPHONES, EARPHONES WHETHER OR NOT COMBINED MICROPHONE/SPEAKER SETS.
851840 .....	AUDIO-FREQUENCY ELECTRIC AMPLIFIERS.
851850 .....	ELECTRIC SOUND AMPLIFIER SETS.
851890 .....	PARTS OF MICROPHONES, LOUDSPEAKERS, HEADPHONES, EARPHONES, AUDIO-FREQUENCY ELECTRIC AMPLIFIERS, AND ELECTRIC SOUND AMPLIFIER SETS.
851920 .....	SOUND RECORDING OR REPRODUCING APPARATUS OPERATED BY COINS, BANKNOTES, BANK CARDS, TOKENS OR BY OTHER MEANS OF PAYMENT.
851930 .....	TURNTABLES (RECORD-DECKS).

HTS-6 Code	HTS description
851981 .....	SOUND RECORDING OR REPRODUCING APPARATUS, USING MAGNETIC, OPTICAL OR SEMICONDUCTOR MEDIA, NESOI.
851989 .....	SOUND RECORDING OR REPRODUCING APPARATUS, NESOI.
852110 .....	VIDEO RECORDING OR REPRODUCING APPARATUS (WHETHER OR NOT INCORPORATING A VIDEO TUNER), MAGNETIC TAPE-TYPE.
852190 .....	VIDEO RECORDING OR REPRODUCING APPARATUS (WHETHER OR NOT INCORPORATING A VIDEO TURNER), OTHER THAN MAGNETIC TAPE-TYPE.
852210 .....	PICKUP CARTRIDGES FOR SOUND RECORDERS.
852290 .....	PARTS AND ACCESSORIES, EXCEPT PICKUP CARTRIDGES, FOR SOUND REPRODUCING, SOUND RECORDING, AND VIDEO RECORDING OR REPRODUCING APPARATUS.
852321 .....	CARDS INCORPORATING A MAGNETIC STRIPE.
852329 .....	MAGNETIC MEDIA FOR THE RECORDING OF SOUND OR OTHER PHENOMENA, NESOI.
852341 .....	OPTICAL MEDIA FOR THE RECORDING OF SOUND OR OF OTHER PHENOMENA, UNRECORDED.
852349 .....	OPTICAL MEDIA FOR THE RECORDING OF SOUND OR OF OTHER PHENOMENA, RECORDED.
* .....	* .....
852352 .....	SMART CARDS.
852359 .....	SEMICONDUCTOR MEDIA, FOR THE RECORDING OF SOUND OR OTHER PHENOMENA, NESOI.
852380 .....	MEDIA FOR THE RECORDING OF SOUND OR OF OTHER PHENOMENA, NESOI.
852411 .....	OPTICAL DEVICES, APPLIANCES AND INSTRUMENTS, NESOI.
852412 .....	PARTS (EXCEPT ANTENNAS AND REFLECTORS) FOR USE WITH RADIO TRANSMISSION, RADAR, RADIO NAVIGATIONAL AID, RECEPTION AND TELEVISION APPARATUS, NESOI.
852419 .....	PARTS AND ACCESSORIES FOR LIQUID CRYSTAL DEVICES, LASERS (OTHER THAN LASER DIODES) AND OTHER OPTICAL APPLIANCES AND INSTRUMENTS, NESOI.
852491 .....	OTHER RECORDED MEDIA, NESOI, FOR REPRODUCING PHENOMENA OTHER THAN SOUND OR IMAGE.
852492 .....	PARTS (EXCEPT ANTENNAS AND REFLECTORS) FOR USE WITH RADIO TRANSMISSION, RADAR, RADIO NAVIGATIONAL AID, RECEPTION AND TELEVISION APPARATUS, NESOI.
852499 .....	RECORDED MEDIA FOR REPRODUCING SOUND OR IMAGE, N.E.S.O.I.
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852560 .....	TRANSMISSION APPARATUS INCORPORATING RECEPTION APPARATUS, FOR RADIO-BROADCASTING OR TELEVISION.
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852691 .....	RADIO NAVIGATIONAL AID APPARATUS.
* .....	* .....
852712 .....	POCKET-SIZE RADIO CASSETTE PLAYERS.
852713 .....	RADIOBROADCAST RECEIVERS CAPABLE OF OPERATING WITHOUT AN EXTERNAL SOURCE OF POWER, COMBINED WITH SOUND RECORDING OR REPRODUCING APPARATUS, N.E.S.O.I.
852719 .....	RADIOBROADCAST RECEIVERS, BATTERY TYPE, NESOI.
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852729 .....	RADIOBROADCAST RECEIVERS FOR MOTOR VEHICLES, NOT CAPABLE OF OPERATING WITHOUT OUTSIDE POWER, NESOI.
852791 .....	RECEPTION APPARATUS FOR RADIO-BROADCASTING, COMBINED WITH SOUND RECORDING OR REPRODUCING APPARATUS, NESOI.
852792 .....	RECEPTION APPARATUS FOR RADIO-BROADCASTING, COMBINED WITH A CLOCK, NESOI.
852799 .....	RECEPTION APPARATUS FOR RADIO-BROADCASTING, NESOI.
852842 .....	CATHODE-RAY TUBE MONITORS CAPABLE OF DIRECTLY CONNECTING TO AND DESIGNED FOR USE WITH MACHINES OF HEADING 8471.
* .....	* .....
852852 .....	OTHER MONITORS CAPABLE OF DIRECTLY CONNECTING TO AND DESIGNED FOR USE WITH MACHINES OF HEADING 8471.
852859 .....	MONITORS, NOT INCORPORATING TELEVISION RECEPTION APPARATUS, NESOI.
852862 .....	PROJECTORS CAPABLE OF DIRECTLY CONNECTING TO AND DESIGNED FOR USE WITH ADP MACHINES OF HEADING 8471.
852869 .....	PROJECTORS, NOT INCORPORATING TELEVISION RECEPTION APPARATUS, NESOI.
852871 .....	RECEPTION APPARATUS FOR TELEVISION, NOT DESIGNED TO INCORPORATE A VIDEO DISPLAY OR SCREEN.
852872 .....	RECEPTION APPARATUS FOR TELEVISION, COLOR, NESOI.
852873 .....	RECEPTION APPARATUS FOR TELEVISION, MONOCHROME, DESIGNED TO INCORPORATED A VIDEO DISPLAY OR SCREEN.
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852990 .....	PARTS (EXCEPT ANTENNAS AND REFLECTORS) FOR USE WITH RADIO TRANSMISSION, RADAR, RADIO NAVIGATIONAL AID, RECEPTION AND TELEVISION APPARATUS, NESOI.
* .....	* .....
853110 .....	BURGLAR OR FIRE ALARMS AND SIMILAR APPARATUS.
853120 .....	INDICATOR PANELS INCORPORATING LIQUID CRYSTAL DEVICES (LCD'S) OR LIGHT EMITTING DIODES (LED'S).
853180 .....	ELECTRIC SOUND OR VISUAL SIGNALING APPARATUS (FOR EXAMPLE, BELLS, SIRENS, INDICATOR PANELS), NESOI.
853190 .....	PARTS OF ELECTRIC SOUND OR VISUAL SIGNALING APPARATUS, NESOI.

HTS-6 Code	HTS description
853222	FIXED CAPACITORS NESOI, ALUMINUM ELECTROLYTIC.
853223	FIXED CAPACITORS NESOI, SINGLE LAYER CERAMIC DIELECTRIC.
853225	FIXED CAPACITORS NESOI, DIELECTRIC OF PAPER OR PLASTICS.
853310	FIXED CARBON RESISTORS, COMPOSITION OR FILM TYPES.
853321	FIXED RESISTORS, NESOI, FOR A POWER HANDLING CAPACITY NOT EXCEEDING 20 W.
853331	WIREWOUND VARIABLE RESISTORS, INCLUDING RHEOSTATS AND POTENTIOMETERS, FOR A POWER HANDLING CAPACITY NOT EXCEEDING 20 W.
853339	WIREWOUND VARIABLE RESISTORS, INCLUDING RHEOSTATS AND POTENTIOMETERS, FOR A POWER HANDLING CAPACITY EXCEEDING 20 W.
853340	VARIABLE RESISTORS, INCLUDING RHEOSTATS AND POTENTIOMETERS, NESOI.
853610	FUSES FOR ELECTRICAL APPARATUS FOR A VOLTAGE NOT EXCEEDING 1,000 V.
853620	AUTOMATIC CIRCUIT BREAKERS FOR A VOLTAGE NOT EXCEEDING 1,000 V.
853630	ELECTRICAL APPARATUS FOR PROTECTING ELECTRICAL CIRCUITS FOR A VOLTAGE NOT EXCEEDING 1,000 V, NESOI.
853641	RELAYS FOR A VOLTAGE NOT EXCEEDING 60 V.
853649	RELAYS FOR A VOLTAGE EXCEEDING 60 V BUT NOT EXCEEDING 1,000 V.
853661	ELECTRICAL LAMPHOLDERS FOR A VOLTAGE NOT EXCEEDING 1,000 V.
853670	CONNECTORS FOR OPTICAL FIBERS, OPTICAL FIBER BUNDLES OR CABLES.
853720	BOARDS, PANELS, CONSOLES, ETC. WITH ELECTRICAL APPARATUS, FOR ELECTRIC CONTROL OR DISTRIBUTION OF ELECTRICITY, FOR A VOLTAGE EXCEEDING 1,000 V.
853910	SEALED BEAM ELECTRIC LAMP UNITS.
853921	TUNGSTEN HALOGEN ELECTRIC FILAMENT LAMPS.
853922	ELECTRIC FILAMENT LAMPS NESOI, OF A POWER NOT EXCEEDING 200 W AND FOR A VOLTAGE EXCEEDING 100 V.
853931	ELECTRIC DISCHARGE LAMPS (OTHER THAN ULTRAVIOLET LAMPS), FLUORESCENT, HOT CATHODE.
853932	MERCURY OR SODIUM VAPOR DISCHARGE LAMPS; METAL HALIDE DISCHARGE LAMPS.
853949	ULTRAVIOLET OR INFRARED LAMPS.
853990	PARTS FOR ELECTRIC FILAMENT, DISCHARGE OR ARC LAMPS.
854011	CATHODE-RAY TELEVISION PICTURE TUBES, COLOR, INCLUDING VIDEO MONITOR CATHODE-RAY TUBES.
854012	CATHODE-RAY TELEVISION PICTURE TUBES, INCLUDING VIDEO MONITOR CATHODE-RAY TUBES, MONOCHROME.
854040	DATA/GRAPHIC DISPLAY TUBES, MONOCHROME; DATA/GRAPHIC DISPLAY TUBES, COLOR, WITH A PHOSPHOR DOT SCREEN PITCH SMALLER THAN 0.4 MM.
854340	ELECTRIC FENCE ENERGIZERS.
854390	PARTS FOR ELECTRICAL MACHINES AND APPARATUS HAVING INDIVIDUAL FUNCTIONS, NESOI.
854419	INSULATED WINDING WIRE, NESOI.
854420	INSULATED COAXIAL CABLE AND OTHER COAXIAL ELECTRICAL CONDUCTORS.
854442	ELECTRIC CONDUCTORS, FOR A VOLTAGE NOT EXCEEDING 1000 V, FITTED WITH CONNECTORS, NESOI.
854511	CARBON ELECTRODES OF A KIND USED FOR FURNACES.

HTS-6 Code	HTS description
854519 .....	CARBON ELECTRODES NESOI.
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854590 .....	ELECTRICAL CARBON OR GRAPHITE ARTICLES, NESOI.
854610 .....	ELECTRICAL INSULATORS OF GLASS.
854620 .....	ELECTRICAL INSULATORS OF CERAMICS.
854690 .....	ELECTRICAL INSULATORS, NESOI.
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860210 .....	DIESEL-ELECTRIC LOCOMOTIVES.
* * * * *	
860610 .....	RAILWAY OR TRAMWAY TANK CARS AND THE LIKE, NOT SELF-PROPELLED.
860630 .....	RAILWAY OR TRAMWAY SELF-DISCHARGING CARS (OTHER THAN TANK CARS AND THE LIKE OR INSULATED OR REFRIGERATED CARS), NOT SELF-PROPELLED.
860691 .....	RAILWAY OR TRAMWAY FREIGHT CARS, COVERED AND CLOSED, NOT SELF-PROPELLED, NESOI.
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860699 .....	RAILWAY OR TRAMWAY FREIGHT CARS, NOT SELF-PROPELLED, NESOI.
870121 .....	ROAD TRACTORS FOR SEMI-TRAILERS.
870122 .....	ROAD TRACTORS FOR SEMI-TRAILERS.
870123 .....	ROAD TRACTORS FOR SEMI-TRAILERS.
870124 .....	ROAD TRACTORS FOR SEMI-TRAILERS.
870130 .....	TRACK-LAYING TRACTORS.
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870321 .....	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY NOT OVER 1,000 CC.
870322 .....	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 1,000 CC BUT NOT OVER 1,500 CC.
870323 .....	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 1,500 CC BUT NOT OVER 3,000 CC.
870324 .....	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 3,000 CC.
870331 .....	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY NOT OVER 1,500 CC.
870332 .....	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY OVER 1,500 CC BUT NOT OVER 2,500 CC.
870333 .....	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY OVER 2,500 CC.
870340 .....	PASSENGER MOTOR VEHICLES, WITH BOTH APRK-IG INTRNL COMBUST AND ELECTRIC MOTOR, OTHER THAN THOSE CHARGES BY PLUGGIN TO EXTERNAL ELECTRIC POWER.
870350 .....	MOTOR VEHICLES, WITH BOTH COMPRES-IG INTERNAL COMBUS PISTON ENGINE (DIESEL/SEMI-DIESEL) AND ELECTRIC MOTOR, NOT CHARGED BY PLUG.
870360 .....	MOTOR VEHICLES WITH BOTH SPARK-IG AND ELECTRIC MOTOR, CAPABLE OF CHARGE BY PLUGGING TO EXTNL PWR.
870370 .....	MOTOR VEHICLES, WITH BOTH COMPRESSION-IGNITION INTERNAL COMBUSTION (DIESEL/SEMI-DIESEL AND ELECTRIC MOTOR, CAPABLE OF CHARGED BY PLUGGING.
870380 .....	MOTOR VEHICLES WITH ONLY ELECTRIC MOTOR, NESOI.
870390 .....	PASSENGER MOTOR VEHICLES, NESOI.
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870431 .....	MOTOR VEHICLES FOR GOODS TRANSPORT NESOI, WITH SPARK-IGNITION INTERNAL COMBUSTION PISTON ENGINE, GVW NOT OVER 5 METRIC TONS.
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870441 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870442 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870443 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870451 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870452 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870460 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
870490 .....	MOTOR VEHICLES FOR THE TRANSPORT OF GOODS, NESOI.
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870520 .....	MOBILE DRILLING DERRICKS.
870530 .....	FIRE FIGHTING VEHICLES.
* * * * *	
890110 .....	CRUISE SHIPS, EXCURSION BOATS AND SIMILAR VESSELS PRINCIPALLY DESIGNED FOR THE TRANSPORT OF PERSONS; FERRY BOATS OF ALL KINDS.
890311 .....	INFLATABLE YACHTS AND VESSELS FOR PLEASURE OR SPORTS, INCLUDING INFLATABLE ROW BOATS AND CANOES.

HTS-6 Code	HTS description
890312	INFLATABLE YACHTS AND VESSELS FOR PLEASURE OR SPORTS, INCLUDING INFLATABLE ROW BOATS AND CANOES.
890319	INFLATABLE YACHTS AND VESSELS FOR PLEASURE OR SPORTS, INCLUDING INFLATABLE ROW BOATS AND CANOES.
890321	SAILBOATS, WITH OR WITHOUT AUXILIARY MOTOR.
890322	SAILBOATS, WITH OR WITHOUT AUXILIARY MOTOR.
890323	SAILBOATS, WITH OR WITHOUT AUXILIARY MOTOR.
890331	MOTORBOATS, OTHER THAN OUTBOARD MOTORBOATS.
890332	MOTORBOATS, OTHER THAN OUTBOARD MOTORBOATS.
890333	MOTORBOATS, OTHER THAN OUTBOARD MOTORBOATS.
890393	YACHTS AND OTHER VESSELS FOR PLEASURE OR SPORTS NESOI; ROW BOATS AND CANOES (NOT DESIGNED TO BE PRINCIPALLY USED WITH MOTORS OR SAILS) NESOI.
890399	YACHTS AND OTHER VESSELS FOR PLEASURE OR SPORTS NESOI; ROW BOATS AND CANOES (NOT DESIGNED TO BE PRINCIPALLY USED WITH MOTORS OR SAILS) NESOI.
	* * * * *
900120	SHEETS AND PLATES OF POLARIZING MATERIAL.
900130	CONTACT LENSES.
900140	SPECTACLE LENSES OF GLASS.
900150	SPECTACLE LENSES OF MATERIALS OTHER THAN GLASS.
900190	LENSES (EXCEPT CONTACT AND SPECTACLE), PRISMS, MIRRORS AND OTHER OPTICAL ELEMENTS, UNMOUNTED, OTHER THAN ELEMENTS OF GLASS NOT OPTICALLY WORKED.
900211	OBJECTIVE LENSES AND PARTS AND ACCESSORIES THEREOF FOR CAMERAS, PROJECTORS OR PHOTOGRAPHIC ENLARGERS OR REDUCERS.
900219	OBJECTIVE LENSES AND PARTS AND ACCESSORIES THEREOF FOR INSTRUMENTS OR APPARATUS, NESOI.
900220	OPTICAL FILTERS AND PARTS AND ACCESSORIES THEREOF FOR INSTRUMENTS OR APPARATUS.
900290	PRISMS, MIRRORS AND OTHER OPTICAL ELEMENTS, MOUNTED, AND PARTS AND ACCESSORIES THEREOF, NESOI.
900311	FRAMES AND MOUNTINGS FOR SPECTACLES, GOGGLES OR THE LIKE, OF PLASTICS.
900319	FRAMES AND MOUNTINGS FOR SPECTACLES, GOGGLES OR THE LIKE, OF MATERIALS OTHER THAN PLASTICS.
900390	PARTS OF FRAMES AND MOUNTINGS FOR SPECTACLES, GOGGLES OR THE LIKE.
900410	SUNGLASSES.
900490	SPECTACLES, GOGGLES AND THE LIKE, CORRECTIVE, PROTECTIVE OR OTHER, NESOI.
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900710	CINEMATOGRAPHIC CAMERAS.
900720	CINEMATOGRAPHIC PROJECTORS, WHETHER OR NOT INCORPORATING SOUND RECORDING OR REPRODUCING APPARATUS.
900791	PARTS AND ACCESSORIES FOR CINEMATOGRAPHIC CAMERAS.
900792	PARTS AND ACCESSORIES FOR CINEMATOGRAPHIC PROJECTORS.
900850	IMAGE AND PHOTOGRAPHIC PROJECTORS, ENLARGERS AND REDUCERS, OTHER THAN CINEMATOGRAPHIC.
900890	PARTS AND ACCESSORIES OF IMAGE PROJECTORS, PHOTOGRAPHIC ENLARGERS AND REDUCERS, OTHER THAN CINEMATOGRAPHIC.
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901050	APPARATUS AND EQUIPMENT FOR PHOTOGRAPHIC (INCLUDING CINEMATOGRAPHIC) LABORATORIES, N.E.S.O.I.; NEGATOSCOPES.
901060	PROJECTION SCREENS.
901090	PARTS AND ACCESSORIES OF APPARATUS AND EQUIPMENT FOR PHOTOGRAPHIC (INCLUDING CINEMATOGRAPHIC) LABORATORIES NESOI, NEGATOSCOPES AND PROJECTION SCREENS.
901110	STEREOSCOPIC MICROSCOPES.
901120	MICROSCOPES NESOI, FOR PHOTOMICROGRAPHY, CINEPHOTOMICROGRAPHY OR MICROPROJECTION.
901180	COMPOUND OPTICAL MICROSCOPES, NESOI.
901190	PARTS AND ACCESSORIES FOR COMPOUND OPTICAL MICROSCOPES.
901210	MICROSCOPES OTHER THAN OPTICAL MICROSCOPES; DIFFRACTION APPARATUS.
901290	PARTS AND ACCESSORIES FOR MICROSCOPES OTHER THAN OPTICAL MICROSCOPES; PARTS AND ACCESSORIES FOR DIFFRACTION APPARATUS.
901310	TELESCOPIC SIGHTS FOR FITTING TO ARMS; PERISCOPES; TELESCOPES FOR OPTICAL, PHOTOGRAPHIC, PRECISION, MEDICAL AND ELECTRICAL MACHINES, APPLIANCES, ETC.
901320	LASERS, OTHER THAN LASER DIODES.
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901390	PARTS AND ACCESSORIES FOR LIQUID CRYSTAL DEVICES, LASERS (OTHER THAN LASER DIODES) AND OTHER OPTICAL APPLIANCES AND INSTRUMENTS, NESOI.
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901530	LEVELS (SURVEYING).
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901600	BALANCES OF A SENSITIVITY OF 5 CG OR BETTER, WITH OR WITHOUT WEIGHTS; PARTS AND ACCESSORIES THEREOF.
901710	DRAFTING TABLES AND MACHINES, WHETHER OR NOT AUTOMATIC.
901720	DRAWING, MARKING-OUT OR MATHEMATICAL CALCULATING INSTRUMENTS, EXCEPT DRAFTING TABLES AND MACHINES.

HTS-6 Code	HTS description
901730	MICROMETERS, CALIPERS AND GAUGES.
901780	INSTRUMENTS FOR MEASURING LENGTH, FOR USE IN THE HAND, NESOI.
901790	PARTS AND ACCESSORIES FOR DRAWING, MARKING-OUT OR MATHEMATICAL CALCULATING INSTRUMENTS AND INSTRUMENTS FOR MEASURING LENGTH FOR USE IN THE HAND, NESOI.
901811	ELECTROCARDIOGRAPHS, AND PARTS AND ACCESSORIES THEREOF.
901812	ULTRASONIC SCANNING APPARATUS.
901813	MAGNETIC RESONANCE IMAGING APPARATUS.
901814	SCINTIGRAPHIC APPARATUS.
901819	ELECTRO-DIAGNOSTIC APPARATUS (AND APPARATUS FOR FUNCTIONAL EXPLORATORY EXAMINATION OR FOR CHECKING PHYSIOLOGICAL PARAMETERS) NESOI, AND PARTS, ETC.
901820	ULTRAVIOLET OR INFRARED RAY APPARATUS, AND PARTS AND ACCESSORIES THEREOF.
901831	SYRINGES, WITH OR WITHOUT NEEDLES; PARTS AND ACCESSORIES THEREOF.
901832	TUBULAR METAL NEEDLES AND NEEDLES FOR SUTURES AND PARTS AND ACCESSORIES THEREOF.
901839	MEDICAL ETC., NEEDLES NESOI, CATHETERS, CANNULAE AND THE LIKE; PARTS AND ACCESSORIES THEREOF.
901841	DENTAL DRILL ENGINES, WHETHER OR NOT COMBINED ON A SINGLE BASE WITH OTHER DENTAL EQUIPMENT, AND PARTS AND ACCESSORIES THEREOF.
901849	INSTRUMENTS AND APPLIANCES USED IN DENTAL SCIENCES, NESOI, AND PARTS AND ACCESSORIES THEREOF.
901850	OPHTHALMIC INSTRUMENTS AND APPLIANCES, NESOI, AND PARTS AND ACCESSORIES THEREOF.
901890	INSTRUMENTS AND APPLIANCES FOR MEDICAL, SURGICAL OR VETERINARY SCIENCES, NESOI, AND PARTS AND ACCESSORIES THEREOF.
901910	MECHANO-THERAPY APPLIANCES; MASSAGE APPARATUS; PSYCHOLOGICAL APTITUDE-TESTING APPARATUS; PARTS AND ACCESSORIES THEREOF.
901920	OZONE THERAPY, OXYGEN THERAPY, AEROSOL THERAPY, ARTIFICIAL RESPIRATION OR OTHER THERAPEUTIC RESPIRATION APPARATUS; PARTS AND ACCESSORIES THEREOF.
902000	BREATHING APPLIANCES NESOI AND GAS MASKS HAVING MECHANICAL PARTS AND/OR REPLACEABLE FILTERS; PARTS AND ACCESSORIES THEREOF.
902110	ORTHOPEDIC OR FRACTURE APPLIANCES; PARTS AND ACCESSORIES THEREOF.
902121	ARTIFICIAL TEETH; AND PARTS AND ACCESSORIES THEREOF.
902129	DENTAL FITTINGS; AND PARTS AND ACCESSORIES THEREOF.
902131	ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES THEREOF.
902139	ARTIFICIAL JOINTS AND PARTS AND ACCESSORIES THEREOF, NESOI.
902140	HEARING AIDS.
902150	PACEMAKERS FOR STIMULATING HEART MUSCLES.
902190	ARTIFICIAL PARTS OF THE BODY NESOI; AND PARTS AND ACCESSORIES THEREOF.
902212	COMPUTED TOMOGRAPHY APPARATUS.
902213	APPARATUS BASE ON THE USE OF X-RAYS FOR DENTAL, USES, INCLUDING RADIOGRAPHY OR RADIOTHERAPY APPARATUS.
902214	APPARATUS BASED ON THE USE OF X-RAYS FOR MEDICAL, SURGICAL, OR VETERINARY USES, INCLUDING RADIOGRAPHY OR RADIOTHERAPY APPARATUS, NESOI.
902219	APPARATUS BASED ON THE USE OF X-RAYS FOR USES OTHER THAN MEDICAL, SURGICAL, DENTAL OR VETERINARY, INCLUDING INDUSTRIAL X-RAY APPARATUS.
902221	APPARATUS BASED ON THE USE OF ALPHA, BETA OR GAMMA RADIATIONS FOR MEDICAL, SURGICAL, DENTAL OR VETERINARY USES.
902229	APPARATUS BASED ON THE USE OF ALPHA, BETA OR GAMMA RADIATIONS FOR OTHER THAN MEDICAL, SURGICAL, DENTAL OR VETERINARY USES.
902230	X-RAY TUBES.
902290	X-RAY GENERATORS, HIGH TENSION GENERATORS, CONTROL PANELS AND DESKS, SCREENS, EXAMINATION OR TREATMENT TABLES, CHAIRS ETC.; PARTS AND ACCESSORIES.
902300	INSTRUMENTS, APPARATUS AND MODELS, DESIGNED FOR DEMONSTRATIONAL PURPOSES, UNSUITABLE FOR OTHER USES, AND PARTS AND ACCESSORIES THEREOF.
902410	MACHINES AND APPLIANCES FOR TESTING METALS.
*	*
902490	PARTS AND ACCESSORIES OF MACHINES OR APPLIANCES FOR TESTING HARDNESS, STRENGTH, COMPRESSIBILITY, ELASTICITY OR OTHER SPECIFIC PROPERTIES OF MATERIALS.
902511	THERMOMETERS AND PYROMETERS, NOT COMBINED WITH OTHER INSTRUMENTS, LIQUID-FILLED, FOR DIRECT READING.
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902580	HYDROMETERS AND SIMILAR FLOATING INSTRUMENTS, HYGROMETERS AND PSYCHROMETERS, NESOI.
*	*
902720	CHROMATOGRAPHS AND ELECTROPHORESIS INSTRUMENTS.
902730	SPECTROMETERS, SPECTROPHOTOMETERS AND SPECTROGRAPHS USING OPTICAL RADIATIONS (ULTRAVIOLET, VISIBLE, INFRARED).
902750	INSTRUMENTS AND APPARATUS FOR PHYSICAL OR CHEMICAL ANALYSIS USING OPTICAL RADIATIONS (ULTRAVIOLET, VISIBLE, INFRARED), NESOI.
*	*
902790	MICROTOMES; PARTS AND ACCESSORIES FOR INSTRUMENTS AND APPARATUS FOR PHYSICAL OR CHEMICAL ANALYSIS.
902810	GAS SUPPLY OR PRODUCTION METERS.
902820	LIQUID SUPPLY OR PRODUCTION METERS.
902830	ELECTRICITY SUPPLY OR PRODUCTION METERS.

HTS-6 Code	HTS description
902890	PARTS AND ACCESSORIES OF GAS, LIQUID OR ELECTRICITY SUPPLY OR PRODUCTION METERS, INCLUDING CALIBRATING METERS THEREFOR.
903010	INSTRUMENTS AND APPARATUS FOR MEASURING OR DETECTING IONIZING RADIATIONS.
903020	CATHODE-RAY OSCILLOSCOPES AND CATHODE-RAY OSCILLOGRAPHS.
903031	MULTIMETERS, WITHOUT A RECORDING DEVICE.
903033	INSTRUMENTS AND APPARATUS, FOR MEASURING OR CHECKING VOLTAGE, CURRENT, RESISTANCE OR POWER, WITHOUT A RECORDING DEVICE, NESOI.
903084	INSTRUMENTS AND APPARATUS, WITH A RECORDING DEVICE, NESOI.
903090	PARTS AND ACCESSORIES OF INSTRUMENTS AND APPARATUS FOR MEASURING, CHECKING OR DETECTING ELECTRICAL QUANTITIES, OR IONIZING RADIATIONS, NESOI.
903110	MEASURING OR CHECKING MACHINES FOR BALANCING MECHANICAL PARTS, NESOI.
903141	OPTICAL INSTRUMENTS FOR INSPECTING SEMICONDUCTOR WAFERS OR DEVICES OR FOR INSPECTING PHOTOMASKS OR RETICLES USED IN MANUFG SEMICONDUCTOR DEVICES.
903190	PARTS AND ACCESSORIES FOR MEASURING OR CHECKING INSTRUMENTS, APPLIANCES AND MACHINES, NESOI; PARTS AND ACCESSORIES FOR PROFILE PROJECTORS.
903210	THERMOSTATS.
903220	MANOSTATS.
903290	PARTS AND ACCESSORIES OF AUTOMATIC REGULATING OR CONTROLLING INSTRUMENTS AND APPARATUS.
903300	PARTS AND ACCESSORIES (NOT SPECIFIED OR INCLUDED ELSEWHERE IN THIS CHAPTER) FOR MACHINES, APPLIANCES, INSTRUMENTS OR APPARATUS OF CHAPTER 90.
940110	SEATS OF A KIND USED FOR AIRCRAFT.
940120	SEATS OF A KIND USED FOR MOTOR VEHICLES.
940330	WOODEN FURNITURE (EXCEPT SEATS) OF A KIND USED IN OFFICES.
940610	PREFABRICATED BUILDINGS OF WOOD.
940620	PREFABRICATED BUILDINGS, OTHER THAN OF WOOD.
940690	PREFABRICATED BUILDINGS, OTHER THAN OF WOOD.
950300	TRICYCLES, SCOOTERS, PEDAL CARS AND SIMILAR WHEELED TOYS; DOLLS' CARRIAGES; DOLLS; OTHER TOYS; ETC.
960610	PRESS-FASTENERS, SNAP-FASTENERS AND PRESS-STUDS AND PARTS THEREFOR.
960621	BUTTONS OF PLASTICS, NOT COVERED WITH TEXTILE MATERIAL.
960622	BUTTONS OF BASE METAL, NOT COVERED WITH TEXTILE MATERIAL.
960629	BUTTONS, NESOI.
960630	BUTTONS MOLDS AND OTHER PARTS OF BUTTONS; BUTTON BLANKS.
960891	PEN NIBS AND NIB POINTS.
961220	INK-PADS, WHETHER OR NOT INKED.

■ 12. Supplement no. 5 to part 746 is revised to read as follows:

**Supplement No. 5 to Part 746—‘Luxury Goods’ Sanctions for Russia and Belarus Pursuant to § 746.10(a)(1) and (2)**

(a) The source for the Harmonized Tariff Schedule (HTS)-6 codes and descriptions in this list comes from the United States International Trade Commission (USITC’s) Harmonized Tariff Schedule of the United States (2023). The items described in supplement no. 5 to part 746 include any modified or designed “components,” “parts,” “accessories,” and “attachments” therefor regardless of the HTS Code or HTS Description of the “components,” “parts,” “accessories,” and “attachments,” apart from any “part” or minor “component” that is a fastener (e.g., screw, bolt, nut, nut plate, stud,

insert, clip, rivet, pin), washer, spacer, insulator, grommet, bushing, spring, wire, or solder. This supplement includes two columns consisting of the HTS Code and HTS Description and Per Unit Wholesale Price in the U.S. if applicable to assist exporters, reexporters, and transferors in identifying the products in this supplement. For information on HTS codes in general, you may contact a local import specialist at U.S. Customs and Border Protection at the nearest port. HTS-6 Codes 590500, 840710, 840721, 840729, 840731, 840732, 840733, 840734, 840790, 840810, 840820, 840890, 840910, 840991, 840999, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841229, 841290, 841451, 841459, 841460, 841510, 841810, 841821, 841829, 841830, 841840, 841981, 842211, 842310, 842860, 843139, 844312, 844331, 844332, 844339, 845011, 845012, 845019, 845121, 845210, 847010, 847021, 847029, 847030,

847130, 847141, 847149, 847150, 847160, 847170, 847180, 847190, 847290, 847960, 848310, 848320, 848330, 848340, 848350, 848360, 848390, 850811, 850819, 850860, 850980, 851110, 851120, 851130, 851140, 851150, 851180, 851190, 851220, 851230, 851240, 851631, 851650, 851660, 851671, 851672, 851679, 851711, 851713, 851718, 851761, 851762, 851769, 851920, 851930, 851981, 851989, 852110, 852190, 852691, 852712, 852713, 852719, 852721, 852729, 852791, 852792, 852799, 852871, 852872, 852910, 853110, 854370, 854430, 870310, 870321, 870322, 870323, 870324, 870331, 870332, 870333, 870340, 870350, 870360, 870370, 870380, 870390, and 902000 are listed in both this supplement and supplement no. 4 to this part, so exporters, reexporters, and transferors must comply with the license requirements under both §§ 746.5(a)(1)(ii) and 746.10 as applicable.



(b) The items identified in the HTS-6 Code column of this supplement are subject to the license requirement under § 746.10(a)(1) and (2). The other column—HTS Description—is intended to assist exporters with their AES filing responsibilities. The license requirements extend to HTS Codes at the 8 and 10 digit level (HTS-8 and HTS-10 codes, respectively) when such longer HTS Codes begin with the HTS-6 Codes as their first 6 numbers. When a description mentions parts related to one or more numerical headings, this means parts related to any HS codes that begin with the digits in the range specified. For example, 'headings 8524 to 8528' means any HS code, HTS code, or Schedule B which has 8524, 8525, 8526, 8527, or 8528 as the first four digits.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
220300	BEER MADE FROM MALT.
220410	SPARKLING WINE OF FRESH GRAPES.
220421	WINE OF FRESH GRAPES (OTHER THAN SPARKLING WINE) AND GRAPE MUST WITH FERMENTATION PREVENTED, ETC. BY ADDING ALCOHOL, CONTAINERS OF NOT OVER 2 LITERS.
220422	WINE, GRAPE MUST WITH FERMENTATION PREVENTED OR ARRESTED BY THE ADDITION OF ALCOHOL IN CONTAINERS HOLDING MORE THAN 2 LITERS BUT NO MORE THAN 10 LITER.
220429	WINE OF FRESH GRAPES (OTHER THAN SPARKLING WINE) AND GRAPE MUST WITH FERMENTATION PREVENTED, ETC. BY ADDING ALCOHOL, CONTAINERS HOLDING OVER 2 LITERS.
220430	GRAPE MUST, PARTIALLY FERMENTED, HAVING AN ALCOHOLIC STRENGTH BY VOLUME EXCEEDING 0.5% VOL., NESOI.
220510	VERMOUTH AND OTHER WINE OF FRESH GRAPES FLAVORED WITH PLANTS OR AROMATIC SUBSTANCES, IN CONTAINERS HOLDING 2 LITERS OR LESS.
220590	VERMOUTH AND OTHER WINE OF FRESH GRAPES FLAVORED WITH PLANTS OR AROMATIC SUBSTANCES, IN CONTAINERS HOLDING OVER 2 LITERS.
220600	FERMENTED BEVERAGES, NESOI (INCL CIDER, PERRY & MEAD); MIXTURES OF FERMENTED BEVERAGES & MIXTURES OF FERMENTED BEVERAGES & NON-ALCOHOL BEVERAGE NESOI.
220710	ETHYL ALCOHOL, UNDENATURED, OF AN ALCOHOLIC STRENGTH BY VOLUME OF 80% OR HIGHER.
220820	SPIRITS OBTAINED BY DISTILLING GRAPE WINE OR GRAPE MARC (GRAPE BRANDY).
220830	WHISKIES.
220840	RUM AND TAFIA.
220850	GIN AND GENEVA.
220860	VODKA.
220870	LIQUEURS AND CORDIALS.
220890	SPIRITUOUS BEVERAGES, NESOI, INCLUDING CORDIALS, LIQUEURS, KIRSHWASSER, RATAFIA AND VODKA.
240110	TOBACCO, NOT STEMMED/STRIPPED.
240120	TOBACCO, PARTLY OR WHOLLY STEMMED/STRIPPED.
240130	TOBACCO REFUSE (WASTE).
240210	CIGARS, CHEROOTS AND CIGARILLOS, CONTAINING TOBACCO.
240220	CIGARETTES CONTAINING TOBACCO.
240290	CIGARS, CHEROOTS, CIGARILLOS AND CIGARETTES OF TOBACCO SUBSTITUTES, NOT CONTAINING TOBACCO.
240311	WATER PIPE TOBACCO SPECIFIED IN SUBHEADING NOTE 1 TO CHAPTER 24.
240319	SMOKING TOBACCO, WHETHER OR NOT CONTAINING TOBACCO SUBSTITUTES IN ANY PROPORTION, OTHER THAN WATER PIPE TOBACCO.
240391	HOMOGENIZED OR RECONSTITUTED TOBACCO.
240399	MANUFACTURED TOBACCO AND ITS SUBSTITUTES, NESOI; TOBACCO EXTRACTS AND ESSENCES.
240411	MANUFACTURED TOBACCO AND ITS SUBSTITUTES, NESOI; TOBACCO EXTRACTS AND ESSENCES.
240412	CHEMICAL PRODUCTS AND PREPARATIONS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.; RESIDUAL PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.
240419	MANUFACTURED TOBACCO AND ITS SUBSTITUTES, NESOI; TOBACCO EXTRACTS AND ESSENCES.
240491	FOOD PREPARATIONS NESOI.
240492	CHEMICAL PRODUCTS AND PREPARATIONS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.; RESIDUAL PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.
240499	CHEMICAL PRODUCTS AND PREPARATIONS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.; RESIDUAL PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES, N.E.S.O.I.
330290	MIXTURES OF ODORIFEROUS SUBSTANCES AND MIXTURES (INCLUDING ALCOHOLIC SOLUTIONS) BASED ON ONE OR MORE OF THESE SUBSTANCES USED AS RAW MATERIALS, NESOI.
330300	PERFUMES AND TOILET WATERS.
330410	LIP MAKE-UP PREPARATIONS.
330420	EYE MAKE-UP PREPARATIONS.
330491	POWDER MAKE-UP OR SKIN CARE PREPARATIONS, INCLUDING FACE POWDER, ROUGE, BABY POWDER AND BATH POWDER.
330499	BEAUTY OR MAKE-UP PREPARATIONS AND PREPARATIONS FOR CARE OF THE SKIN (EXCLUDING MEDICAMENTS) NESOI, INCLUDING SUNSCREENS AND SUNTAN PREPARATIONS.
330790	DEPILATORIES AND OTHER PERFUMERY, COSMETIC OR TOILET PREPARATIONS, NESOI.
391690	MONOFILAMENT WITH A CROSS-SECTIONAL DIMENSION OVER 1 MM, RODS, STICKS AND PROFILE SHAPES OF PLASTICS, NESOI, NOT MORE THAN SURFACE-WORKED.
392620	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES (INCLUDING GLOVES, MITTENS, AND MITTS), NESOI, OF PLASTICS.
392640	STATUETTES AND OTHER ORNAMENTAL ARTICLES, OF PLASTICS.
392690	ARTICLES OF PLASTICS, NESOI.
420211	TRUNKS, SUITCASES, VANITY CASES AND SIMILAR CONTAINERS, WITH OUTER SURFACE OF LEATHER OR OF COMPOSITION LEATHER.
420212	TRUNKS, SUITCASES, VANITY CASES AND SIMILAR CONTAINERS, WITH OUTER SURFACE OF PLASTICS OR OF TEXTILE MATERIALS.
420219	TRUNKS, SUITCASES, VANITY CASES AND SIMILAR CONTAINERS, WITH OUTER SURFACE OF MATERIALS OTHER THAN LEATHER, PLASTICS OR TEXTILES.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
420221	HANDBAGS, WHETHER OR NOT WITH SHOULDER STRAP OR HANDLES, WITH OUTER SURFACE OF LEATHER OR OF COMPOSITION LEATHER.
420222	HANDBAGS, WHETHER OR NOT WITH SHOULDER STRAP OR HANDLES, WITH OUTER SURFACE OF PLASTIC SHEETING OR OF TEXTILE MATERIALS.
420229	HANDBAGS, WHETHER OR NOT WITH SHOULDER STRAP OR HANDLES, WITH OUTER SURFACE OF MATERIALS NESOI.
420231	ARTICLES NORMALLY CARRIED IN THE POCKET OR HANDBAG, WITH OUTER SURFACE OF LEATHER OR OF COMPOSITION LEATHER.
420232	ARTICLES NORMALLY CARRIED IN THE POCKET OR HANDBAG, WITH OUTER SURFACE OF SHEETING OF PLASTICS OR OF TEXTILE MATERIALS.
420239	ARTICLES NORMALLY CARRIED IN THE POCKET OR HANDBAG, WITH OUTER SURFACE OF MATERIALS NESOI.
420291	CONTAINERS, BAGS, BOXES, CASES, SACHELS ETC. WITH OUTER SURFACE OF LEATHER OR OF COMPOSITION LEATHER, NESOI.
420299	CONTAINER BAGS, BOXES, CASES AND SACHELS NESOI, WITH OUTER SURFACE OF MATERIALS NESOI.
420340	CLOTHING ACCESSORIES NESOI, OF LEATHER OR OF COMPOSITION LEATHER.
430110	MINK FURSKINS, RAW, WHOLE, WITH OR WITHOUT HEAD, TAIL OR PAWS.
430130	ASTRAKHAN, BROADTAIL, CARACUL, PERSIAN AND SIMILAR LAMB, INDIAN, CHINESE, MONGOLIAN OR TIBETAN LAMB, FURSKINS, RAW, WHOLE, WITH OR WITHOUT HEAD, ETC.
430160	FOX FURSKINS, RAW, WHOLE, WITH OR WITHOUT HEAD, TAIL OR PAWS.
430180	FURSKINS NESOI, RAW, WHOLE, WITH OR WITHOUT HEAD, TAIL OR PAWS.
430190	HEADS, TAILS, PAWS AND OTHER PIECES OR CUTTINGS, OF FURSKINS, RAW, SUITABLE FOR FURRIERS' USE.
430211	MINK FURSKINS, WHOLE, WITH OR WITHOUT HEAD, TAIL OR PAWS, TANNED OR DRESSED, NOT ASSEMBLED.
430219	FURSKINS NESOI, WHOLE, WITH OR WITHOUT HEAD, TAIL OR PAWS, TANNED OR DRESSED, NOT ASSEMBLED.
430220	FURSKIN HEADS, TAILS, PAWS AND OTHER PIECES OR CUTTINGS, TANNED OR DRESSED, NOT ASSEMBLED.
430230	FURSKINS, WHOLE AND PIECES OR CUTTINGS THEREOF, TANNED OR DRESSED, ASSEMBLED.
430310	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES OF FURSKINS.
430390	ARTICLES OF FURSKINS, NESOI.
430400	ARTIFICIAL FUR AND ARTICLES THEREOF.
442011	STATUETTES AND OTHER ORNAMENTS, OF WOOD.
442019	STATUETTES AND OTHER ORNAMENTS, OF WOOD.
490700	UNUSED POSTAGE, STAMP-IMPRESSED PAPER, CHECK FORMS, BANK NOTES, STOCK, SHARE OR BOND CERTIFICATES AND SIMILAR DOCUMENTS OF TITLE, ETC.
500100	SILKWORM COCOONS SUITABLE FOR REELING, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500200	RAW SILK (NOT THROWN), AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500300	SILK WASTE (INCLUDING COCOONS UNSUITABLE FOR REELING, YARN WASTE AND GARNETTED STOCK), AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500400	SILK YARN (OTHER THAN SPUN FROM SILK WASTE) NOT PUT UP FOR RETAIL SALE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500500	YARN SPUN FROM SILK WASTE, NOT PUT UP FOR RETAIL SALE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500600	SILK YARN AND YARN SPUN FROM SILK WASTE, PUT UP FOR RETAIL SALE; SILK WORM GUT, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500710	WOVEN FABRICS OF NOIL SILK, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500720	WOVEN FABRICS CONTAINING 85% OR MORE BY WEIGHT OF SILK OR SILK WASTE OTHER THAN NOIL SILK, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
500790	WOVEN FABRICS OF SILK OR SILK WASTE, NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
560394	NONWOVENS, WHETHER OR NOT IMPREGNATED, COATED, COVERED OR LAMINATED, (NOT OF MANMADE FILAMENTS), WEIGHING MORE THAN 150 G/M2, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570110	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, KNOTTED (WHETHER OR NOT MADE-UP), OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570190	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, KNOTTED (WHETHER OR NOT MADE UP), OF TEXTILE MATERIALS, OTHER THAN WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570210	KELEM, SCHUMACKS, KARAMANIE, AND SIMILAR HAND-WOVEN RUGS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570220	FLOOR COVERINGS OF COCONUT FIBERS (COIR), WOVEN, NOT TUFTED OR FLOCKED, WHETHER OR NOT MADE-UP, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570231	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, NOT MADE-UP, OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570232	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, NOT MADE-UP, OF MANMADE TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570239	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, NOT MADE-UP, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570241	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, MADE-UP, OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
570242	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, MADE-UP, OF MANMADE TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570249	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, OF PILE CONSTRUCTION, MADE-UP, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570250	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NOT OF PILE CONSTRUCTION, NOT MADE-UP, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570291	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, NOT OF PILE CONSTRUCTION, MADE-UP, OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570292	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, NOT OF PILE CONSTRUCTION, MADE-UP, OF MANMADE TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570299	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, WOVEN, NOT TUFTED OR FLOCKED, NESOI, NOT OF PILE CONSTRUCTION, MADE-UP, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570310	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570321	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF NYLON OR OTHER POLYAMIDES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570329	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF NYLON OR OTHER POLYAMIDES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570331	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF MANMADE TEXTILE MATERIALS OTHER THAN NYLON OR OTHER POLYAMIDES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570339	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF MANMADE TEXTILE MATERIALS OTHER THAN NYLON OR OTHER POLYAMIDES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570390	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, TUFTED (WHETHER OR NOT MADE-UP), OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570410	TEXTILE FLOOR COVERINGS, OF FELT, NOT TUFTED OR FLOCKED, TILES HAVING A MAXIMUM SURFACE AREA OF 0.30 M2, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570420	TEXTILE FLOOR COVERINGS, OF FELT, NOT TUFTED OR FLOCKED, OTHER THAN TILES HAVING A MAXIMUM SURFACE AREA EXCEEDING 0.3M2 NOT EXC 1 M2, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570490	CARPETS AND OTHER TEXTILE FLOOR COVERINGS, OF FELT, NOT TUFTED OR FLOCKED (WHETHER OR NOT MADE-UP), OTHER THAN TILES WITH A MAXIMUM AREA OF 0.30 M2, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
570500	CARPETS AND OTHER TEXTILE FLOOR COVERINGS (WHETHER OR NOT MADE-UP), NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
580500	HANDWOVEN TAPESTRIES SIMILAR TO GOBELINS, FLANDERS, AUBUSSON OR BEAUVAIS AND NEEDLEWORKED TAPESTRIES (PETIT POINT, CROSS-STITCH ETC.), MADE-UP OR NOT.
580639	NARROW WOVEN FABRICS NESOI, NOT OVER 30 CM IN WIDTH, OF TEXTILE MATERIALS NESOI.
590500	TEXTILE WALL COVERINGS.
611030	SWEATERS, PULLOVERS, SWEATSHIRTS, VESTS AND SIMILAR ARTICLES OF MANMADE FIBERS, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611211	TRACK SUITS, WARM-UP SUITS AND JOGGING SUITS OF COTTON, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611212	TRACK SUITS, WARM-UP SUITS AND JOGGING SUITS OF SYNTHETIC FIBERS, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611219	TRACK SUITS, WARM-UP SUITS AND JOGGING SUITS OF TEXTILE MATERIALS NESOI, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611220	SKI SUITS, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611231	MEN'S OR BOYS' SWIMWEAR OF SYNTHETIC FIBERS, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611239	MEN'S OR BOYS' SWIMWEAR OF TEXTILE MATERIALS NESOI, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611241	WOMEN'S OR GIRLS' SWIMWEAR OF SYNTHETIC FIBERS, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
611249	WOMEN'S OR GIRLS' SWIMWEAR OF TEXTILE MATERIALS NESOI, KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
620610	WOMEN'S OR GIRLS' BLOUSES, SHIRTS AND SHIRT-BLOUSES OF SILK OR SILK WASTE, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
621111	MEN'S OR BOYS' SWIMWEAR, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
621112	WOMEN'S OR GIRLS' SWIMWEAR, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
621120	SKI-SUITS, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
621390	HANDKERCHIEFS, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.

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621410	SHAWLS, SCARVES, MUFFLERS, MANTILLAS, VEILS AND THE LIKE, OF SILK OR SILK WASTE, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
621510	TIES, BOW TIES AND CRAVATS, OF SILK OR SILK WASTE, NOT KNITTED OR CROCHETED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630120	BLANKETS (OTHER THAN ELECTRIC BLANKETS) AND TRAVELING RUGS, OF WOOL OR FINE ANIMAL HAIR, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630130	BLANKETS (OTHER THAN ELECTRIC BLANKETS) AND TRAVELING RUGS, OF COTTON, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630140	BLANKETS (OTHER THAN ELECTRIC BLANKETS) AND TRAVELING RUGS, OF SYNTHETIC FIBERS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630190	BLANKETS (OTHER THAN ELECTRIC BLANKETS) AND TRAVELING RUGS, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630622	TENTS, OF SYNTHETIC FIBERS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630629	TENTS, OF TEXTILE MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630630	SAILS FOR BOATS, SAILBOARDS OR LANDCRAFT, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630690	CAMPING GOODS MADE OF TEXTILES, OTHER THAN TENTS AND PNEUMATIC MATTRESSES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630720	LIFE JACKETS AND LIFE BELTS, OF TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
630800	NEEDLECRAFT SETS, OF WOVEN FABRIC AND YARN, WITH OR WITHOUT ACCESSORIES, FOR MAKING RUGS, TAPESTRIES OR EMBROIDERED ARTICLES, PACKAGED FOR RETAIL SALE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640192	WATERPROOF FOOTWEAR WITH BONDED OR CEMENTED OUTER SOLES AND UPPERS OF RUBBER OR PLASTICS NESOI, COVERING THE ANKLE BUT NOT COVERING THE KNEE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640212	OTHER FOOTWEAR WITH OUTER SOLES AND UPPERS OF RUBBER OR PLASTICS: SPORTS FOOTWEAR: SKI-BOOTS AND CROSS-COUNTRY SKI FOOTWEAR AND SNOWBOARD BOOTS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640219	SPORTS FOOTWEAR, OTHER THAN SKI-BOOTS AND CROSS-COUNTRY SKI FOOTWEAR, WITH OUTER SOLES AND UPPERS OF RUBBER OR PLASTICS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640299	FOOTWEAR, WITH OUTER SOLES AND UPPERS OF RUBBER OR PLASTICS NESOI, NOT COVERING THE ANKLE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640312	FOOTWEAR WITH UPPERS OF LEATHER, SKI-BOOTS AND CROSS-COUNTRY SKI FOOTWEAR AND SNOWBOARD BOOTS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640319	SPORTS FOOTWEAR (OTHER THAN SKI FOOTWEAR) NESOI, WITH OUTER SOLES OF RUBBER, PLASTICS, LEATHER OR COMPOSITION LEATHER AND UPPERS OF LEATHER, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640320	FOOTWEAR, WITH OUTER SOLES OF LEATHER AND UPPERS WHICH CONSIST OF LEATHER STRAPS ACROSS THE INSTEP AND AROUND THE BIG TOE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640340	FOOTWEAR, WITH OUTER SOLES OF RUBBER, PLASTICS, LEATHER OR COMPOSITION LEATHER AND UPPERS OF LEATHER, INCORPORATING A PROTECTIVE METAL TOE-CAP, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640351	FOOTWEAR, WITH OUTER SOLES AND UPPERS OF LEATHER NESOI, COVERING THE ANKLE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640359	FOOTWEAR, WITH OUTER SOLES AND UPPERS OF LEATHER NESOI, NOT COVERING THE ANKLE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640391	FOOTWEAR, WITH OUTER SOLES OF RUBBER, PLASTICS OR COMPOSITION LEATHER AND UPPERS OF LEATHER NESOI, COVERING THE ANKLE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640399	FOOTWEAR, WITH OUTER SOLES OF RUBBER, PLASTICS OR COMPOSITION LEATHER AND UPPERS OF LEATHER NESOI, NOT COVERING THE ANKLE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640411	SPORTS FOOTWEAR, INCLUDING TENNIS SHOES, BASKETBALL SHOES AND GYM SHOES, WITH OUTER SOLES OF RUBBER OR PLASTICS AND UPPERS OF TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640420	FOOTWEAR, WITH OUTER SOLES OF LEATHER OR COMPOSITION LEATHER AND UPPERS OF TEXTILE MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
640510	FOOTWEAR NESOI, WITH UPPERS OF LEATHER OR COMPOSITION LEATHER, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
650610	SAFETY (INCLUDING SPORTS) HEADGEAR, WHETHER OR NOT LINED OR TRIMMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
650699	HEADGEAR NESOI, WHETHER OR NOT LINED OR TRIMMED, OF MATERIALS NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
670100	SKINS AND OTHER PARTS OF BIRDS WITH THEIR FEATHERS OR DOWN, BLEACHED, DYED OR PROCESSED AND ARTICLES OF FEATHERS OR DOWN NESOI
691110	CERAMIC TABLEWARE AND KITCHENWARE, OF PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
691190	CERAMIC HOUSEHOLD AND TOILET ARTICLES NESOI, OF PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
691310	CERAMIC STATUETTES AND OTHER ORNAMENTAL ARTICLES, OF PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
691390	CERAMIC STATUETTES AND OTHER ORNAMENTAL ARTICLES, OF OTHER THAN PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
691410	CERAMIC ARTICLES NESOI, OF PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
691490	CERAMIC ARTICLES NESOI, OF OTHER THAN PORCELAIN OR CHINA, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
701322	STEMWARE DRINKING GLASSES OTHER THAN OF GLASS-CERAMICS OF LEAD CRYSTAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
701333	DRINKING GLASSES, OTHER THAN OF GLASS-CERAMICS, OF LEAD CRYSTAL, NES, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
701341	TABLE OR KITCHEN GLASSWARE NESOI (OTHER THAN DRINKING GLASSES), OF LEAD CRYSTAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
701391	GLASSWARE (INCLUDING GLASSWARE OF A KIND USED FOR TOILET, OFFICE, INDOOR DECORATION OR SIMILAR PURPOSES) NESOI, OF LEAD CRYSTAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
710110	NATURAL PEARLS, NOT MOUNTED OR SET.
710121	CULTURED PEARLS, UNWORKED.
710122	CULTURED PEARLS, WORKED, NOT SET.
710210	DIAMONDS, UNSORTED.
710310	PRECIOUS STONES (OTHER THAN DIAMONDS) AND SEMIPRECIOUS STONES, UNWORKED OR SIMPLY SAWN OR ROUGHLY SHAPED.
710391	RUBIES, SAPPHIRES AND EMERALDS, OTHERWISE WORKED.
710399	SEMIPRECIOUS STONES, OTHERWISE WORKED.
710429	SYNTHETIC OR RECONSTRUCTED GEMSTONES, UNWORKED OR SIMPLY SAWN OR ROUGHLY SHAPED.
710499	SYNTHETIC OR RECONSTRUCTED PRECIOUS OR SEMIPRECIOUS STONES NESOI, OTHERWISE WORKED.
710691	SILVER, UNWROUGHT NESOI (OTHER THAN POWDER).
710692	SILVER, SEMIMANUFACTURED.
710812	GOLD, NONMONETARY, UNWROUGHT NESOI (OTHER THAN POWDER).
710813	GOLD, NONMONETARY, SEMIMANUFACTURED FORMS NESOI (OTHER THAN POWDER).
711311	JEWELRY AND PARTS THEREOF, OF SILVER.
711319	JEWELRY AND PARTS THEREOF, OF PRECIOUS METAL OTHER THAN SILVER.
711320	JEWELRY AND PARTS THEREOF, OF BASE METAL CLAD WITH PRECIOUS METAL.
711419	ARTICLES OF GOLD OR PLATINUM (OTHER THAN JEWELRY), WHETHER OR NOT PLATED OR CLAD WITH OTHER PRECIOUS METAL.
711420	ARTICLES OF GOLDSMITHS' OR SILVERSMITHS' WARES (OTHER THAN JEWELRY) AND PARTS THEREOF, OF BASE METAL CLAD WITH PRECIOUS METAL.
711590	ARTICLES NESOI, OF PRECIOUS METAL OR OF METAL CLAD WITH PRECIOUS METAL.
711610	ARTICLES OF NATURAL OR CULTURED PEARLS.
711620	ARTICLES OF PRECIOUS OR SEMIPRECIOUS STONES (NATURAL, SYNTHETIC OR RECONSTRUCTED).
711719	IMITATION JEWELRY NESOI, OF BASE METAL, WHETHER OR NOT PLATED WITH PRECIOUS METAL.
711810	COIN (OTHER THAN GOLD COIN), NOT BEING LEGAL TENDER.
711890	COIN, NESOI.
732690	ARTICLES OF IRON OR STEEL, NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
830621	STATUETTES AND OTHER ORNAMENTS, AND PARTS THEREOF, OF BASE METAL PLATED WITH PRECIOUS METAL.
830629	STATUETTES AND OTHER ORNAMENTS, AND PARTS THEREOF, OF BASE METAL NOT PLATED WITH PRECIOUS METAL.
840710	AIRCRAFT SPARK-IGNITION RECIPROCATING OR ROTARY INTERNAL COMBUSTION PISTON ENGINES.
840721	OUTBOARD ENGINES FOR MARINE PROPULSION.
840729	INBOARD ENGINES FOR MARINE PROPULSION.
840731	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, NOT OVER 50 CC CYLINDER CAPACITY.
840732	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, OVER 50 BUT NOT OVER 250 CC CYLINDER CAPACITY.
840733	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAIL OR TRAMWAY STOCK, OVER 250 BUT NOT OVER 1,000 CC CYLINDER CAPACITY.
840734	SPARK-IGNITION RECIPROCATING PISTON ENGINES FOR PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK, OVER 1,000 CC CYLINDER CAPACITY.
840790	SPARK-IGNITION RECIPROCATING OR ROTARY INTERNAL COMBUSTION PISTON ENGINES, NESOI.
840810	MARINE COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES (DIESEL OR SEMI-DIESEL ENGINES).
840820	COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES (DIESEL OR SEMI-DIESEL), FOR THE PROPULSION OF VEHICLES EXCEPT RAILWAY OR TRAMWAY STOCK.
840890	COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES (DIESEL OR SEMI-DIESEL ENGINES), NESOI.
840910	PARTS FOR SPARK-IGNITION OR ROTARY INTERNAL COMBUSTION PISTON ENGINES OR COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES, FOR AIRCRAFT.
840991	PARTS FOR USE WITH SPARK-IGNITION INTERNAL COMBUSTION PISTON ENGINES (INCLUDING ROTARY ENGINES), NESOI.
840999	PARTS FOR USE WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINES, NESOI.
841111	TURBOJETTS OF A THRUST NOT EXCEEDING 25 KN.
841112	TURBOJETTS OF A THRUST EXCEEDING 25 KN.
841121	TURBOPROPELLERS OF A POWER NOT EXCEEDING 1,100 KW.
841122	TURBOPROPELLERS OF A POWER EXCEEDING 1,100 KW.
841181	GAS TURBINES, EXCEPT TURBOJETTS AND TURBOPROPELLERS, OF A POWER NOT EXCEEDING 5,000 KW.
841182	GAS TURBINES, EXCEPT TURBOJETTS AND TURBOPROPELLERS, OF A POWER EXCEEDING 5,000 KW.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
841191	PARTS OF TURBOJETS OR TURBOPROPELLERS.
841199	PARTS OF GAS TURBINES, NESOI (OTHER THAN PARTS FOR TURBOJETS OR TURBOPROPELLERS).
841229	HYDRAULIC POWER ENGINES AND MOTORS, EXCEPT LINEAR ACTING (CYLINDERS).
841290	PARTS FOR ENGINES AND MOTORS, NESOI.
841451	FANS, TABLE, FLOOR, WALL, WINDOW, CEILING OR ROOF, WITH SELF-CONTAINED ELECTRIC MOTOR OF AN OUTPUT NOT EXCEEDING 125 W.
841459	FANS, NESOI.
841460	VENTILATING OR RECYCLING HOODS INCORPORATING A FAN, HAVING A MAXIMUM HORIZONTAL SIDE NOT EXCEEDING 120 CM.
841510	AIR CONDITIONING MACHINES, WINDOW OR WALL TYPES, SELF-CONTAINED OR "SPLIT-SYSTEM".
841810	COMBINED REFRIGERATOR-FREEZERS FITTED WITH SEPARATE EXTERNAL DOORS.
841821	REFRIGERATORS, HOUSEHOLD, COMPRESSION TYPE.
841829	REFRIGERATORS, HOUSEHOLD TYPE, NESOI.
841830	FREEZERS, CHEST TYPE, CAPACITY NOT EXCEEDING 800 LITERS.
841840	FREEZERS, UPRIGHT TYPE, CAPACITY NOT EXCEEDING 900 LITERS.
841981	MACHINERY, PLANT OR EQUIPMENT FOR MAKING HOT DRINKS OR FOR COOKING OR HEATING FOOD.
842211	DISHWASHING MACHINES, HOUSEHOLD TYPE.
842310	PERSONAL WEIGHING MACHINES, INCLUDING BABY SCALES; HOUSEHOLD SCALES.
842860	TELEFERICS, CHAIR LIFTS, SKI DRAGLINES; TRACTION MECHANISMS FOR FUNICULARS.
843139	PARTS FOR LIFTING, HANDLING, LOADING OR UNLOADING MACHINERY, NESOI.
844312	OFFSET PRINTING MACHINERY, SHEET-FED, OFFICE TYPE (SHEET SIZE NOT EXCEEDING 22X36 CM).
844331	MACHINES WHICH PERFORM TWO OR MORE OF THE FUNCTIONS OF PRINTING, COPYING OR FAX TRANSMISSION, CAPABLE OF CONNECTING TO AN ADP MACHINE OR TO A NETWORK.
844332	PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, NOT COMBINED, CAPABLE OF CONNECTING TO AN AUTOMATIC DATA PROCESSING MACHINE OR TO A NETWORK.
844339	PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, NOT COMBINED, NESOI.
845011	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, FULLY AUTOMATIC, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845012	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, NOT FULLY AUTOMATIC, WITH A BUILT-IN CENTRIFUGAL DRYER, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845019	HOUSEHOLD- OR LAUNDRY-TYPE WASHING MACHINES, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG, NESOI.
845121	DRYING MACHINES (EXCEPT CENTRIFUGAL TYPE) FOR TEXTILE YARNS, FABRICS OR MADE UP TEXTILE ARTICLES, WITH A DRY LINEN CAPACITY NOT EXCEEDING 10 KG.
845210	SEWING MACHINES OF THE HOUSEHOLD TYPE.
847010	ELECTRONIC CALCULATORS CAPABLE OF OPERATION WITHOUT AN EXTERNAL SOURCE OF POWER.
847021	ELECTRONIC CALCULATING MACHINES, NESOI, INCORPORATING A PRINTING DEVICE.
847029	ELECTRONIC CALCULATING MACHINES, NESOI, NOT INCORPORATING A PRINTING DEVICE.
847030	CALCULATING MACHINES, EXCEPT ELECTRONIC.
847130	PORTABLE DIGTL AUTOMATIC DATA PROCESSING MACHINES, WEIGHT NOT MORE THAN 10 KG, CONSISTING OF AT LEAST A CENTRAL PROCESSING UNIT, KEYBOARD & A DISPLAY.
847141	DIGITAL ADP MACHINES COMPRISING IN SAME HOUSING AT LEAST A CENTRAL PROCESSING UNIT AND AN INPUT AND OUTPUT UNIT, WHETHER OR NOT COMBINED, N.E.S.O.I.
847149	DIGITAL AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF PRESENTED IN THE FORM OF SYSTEMS, N.E.S.O.I.
847150	DIGITAL PROCESSING UNITS OTHER THAN THOSE OF 8471.41 AND 8471.49, N.E.S.O.I.
847160	AUTOMATIC DATA PROCESSING INPUT OR OUTPUT UNITS, WHETHER OR NOT CONTAINING STORAGE UNITS IN THE SAME HOUSING, N.E.S.O.I.
847170	AUTOMATIC DATA PROCESSING STORAGE UNITS, N.E.S.O.I.
847180	AUTOMATIC DATA PROCESSING UNITS, N.E.S.O.I.
847190	AUTOMATIC DATA PROCESSING UNITS THEREOF; MAGNETIC/OPTICAL READERS, MACH FOR TRANSCRIBING DATA TO DATA MEDIA IN CODED FORM & MACH FOR PROC DATA, NESOI.
847290	OFFICE MACHINES NESOI (INCLUDING AUTOMATIC BANKNOTE DISPENSERS, COIN-SORTING MACHINES, PENCIL-SHARPENING MACHINES, PERFORATING OR STAPLING MACHINES).
847960	EVAPORATIVE AIR COOLERS.
848310	TRANSMISSION SHAFTS (INCLUDING CAMSHAFTS AND CRANKSHAFTS) AND CRANKS.
848320	HOUSED BEARINGS, INCORPORATING BALL OR ROLLER BEARINGS.
848330	BEARING HOUSINGS; PLAIN SHAFT BEARINGS.
848340	GEARS AND GEARING (EXCEPT TOOTHED WHEELS, CHAIN SPROCKETS, ETC.); BALL OR ROLLER SCREWS; GEAR BOXES AND OTHER SPEED CHANGERS, INCL TORQUE CONVERTERS.
848350	FLYWHEELS AND PULLEYS, INCLUDING PULLEY BLOCKS.
848360	CLUTCHES AND SHAFT COUPLINGS (INCLUDING UNIVERSAL JOINTS).
848390	TOOTHED WHEELS, CHAIN SPROCKETS AND OTHER TRANSMISSION ELEMENTS PRESENTED SEPARATELY; PARTS.
850811	VACUUM CLEANERS WITH SELF-CONTAINED ELECTRIC MOTOR, OF A POWER LT=1500 W AND HAVING A DUST BAG OR OTHER RECEPTACLE CAPACITY LT=20 L.
850819	VACUUM CLEANERS WITH SELF-CONTAINED ELECTRIC MOTOR, NESOI.
850860	VACUUM CLEANERS WITHOUT SELF-CONTAINED ELECTRIC MOTOR.
850980	ELECTROMECHANICAL DOMESTIC APPLIANCES, WITH SELF-CONTAINED ELECTRIC MOTOR, NESOI.
851110	INTERNAL COMBUSTION ENGINE SPARK PLUGS.
851120	INTERNAL COMBUSTION ENGINE IGNITION MAGNETOS, MAGNETO-DYNAMOS AND MAGNETIC FLYWHEELS.
851130	INTERNAL COMBUSTION ENGINE DISTRIBUTORS AND IGNITION COILS.
851140	INTERNAL COMBUSTION ENGINE STARTER MOTORS AND DUAL PURPOSE STARTER-GENERATORS.
851150	INTERNAL COMBUSTION ENGINE GENERATORS, NESOI.

HTS-6 Code	HTS-6 Description and per unit wholesale price in the U.S. if applicable
851180	ELECTRICAL IGNITION OR STARTING EQUIPMENT USED FOR INTERNAL COMBUSTION ENGINES, NESOI, AND EQUIPMENT USED IN CONJUNCTION WITH SUCH ENGINES, NESOI.
851190	PARTS FOR ELECTRICAL IGNITION OR STARTING EQUIPMENT USED FOR INTERNAL COMBUSTION ENGINES; PARTS FOR GENERATORS AND CUT-OUTS USED WITH SUCH EQUIPMENT.
851220	ELECTRICAL LIGHTING OR VISUAL SIGNALING EQUIPMENT, FOR USE ON CYCLES OR MOTOR VEHICLES, EXCEPT FOR USE ON BICYCLES.
851230	ELECTRICAL SOUND SIGNALING EQUIPMENT USED FOR CYCLES OR MOTOR VEHICLES.
851240	ELECTRICAL WINDSHIELD WIPERS, DEFROSTERS AND DEMISTERS USED FOR CYCLES OR MOTOR VEHICLES.
851631	ELECTRIC HAIR DRYERS.
851650	MICROWAVE OVENS.
851660	ELECTRIC OVENS, COOKING STOVES, RANGES, COOKING PLATES, BOILING RINGS, GRILLERS AND ROASTERS, NESOI.
851671	ELECTRIC COFFEE OR TEA MAKERS.
851672	ELECTRIC TOASTERS.
851679	ELECTROTHERMIC DOMESTIC APPLIANCES, NESOI.
851711	LINE TELEPHONE SETS WITH CORDLESS HANDSETS.
851713	TELEPHONES FOR CELLULAR NETWORKS OR FOR OTHER WIRELESS NETWORKS.
851718	TELEPHONE SETS, NESOI.
851761	BASE STATIONS.
851762	MACHINES FOR THE RECEPTION, CONVERSION AND TRANSMISSION OR REGENERATION OF VOICE, IMAGES OR OTHER DATA, INCLUDING SWITCHING AND ROUTING APPARATUS.
851769	APPARATUS FOR THE TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA, INCLUDING SWITCHING AND ROUTING APPARATUS, NESOI.
851920	SOUND RECORDING OR REPRODUCING APPARATUS OPERATED BY COINS, BANKNOTES, BANK CARDS, TOKENS OR BY OTHER MEANS OF PAYMENT.
851930	TURNTABLES (RECORD-DECKS).
851981	SOUND RECORDING OR REPRODUCING APPARATUS, USING MAGNETIC, OPTICAL OR SEMICONDUCTOR MEDIA, NESOI.
851989	SOUND RECORDING OR REPRODUCING APPARATUS, NESOI.
852110	VIDEO RECORDING OR REPRODUCING APPARATUS (WHETHER OR NOT INCORPORATING A VIDEO TUNER), MAGNETIC TAPE-TYPE.
852190	VIDEO RECORDING OR REPRODUCING APPARATUS (WHETHER OR NOT INCORPORATING A VIDEO TURNER), OTHER THAN MAGNETIC TAPE-TYPE.
852691	RADIO NAVIGATIONAL AID APPARATUS.
852712	POCKET-SIZE RADIO CASSETTE PLAYERS.
852713	RADIOBROADCAST RECEIVERS CAPABLE OF OPERATING WITHOUT AN EXTERNAL SOURCE OF POWER, COMBINED WITH SOUND RECORDING OR REPRODUCING APPARATUS, N.E.S.O.I.
852719	RADIOBROADCAST RECEIVERS, BATTERY TYPE, NESOI.
852721	RADIOBROADCAST RECEIVERS FOR MOTOR VEHICLES, COMBINED WITH SOUND RECORDING OR REPRODUCING APPARATUS, NOT CAPABLE OF OPERATING WITHOUT OUTSIDE POWER.
852729	RADIOBROADCAST RECEIVERS FOR MOTOR VEHICLES, NOT CAPABLE OF OPERATING WITHOUT OUTSIDE POWER, NESOI.
852791	RECEPTION APPARATUS FOR RADIO-BROADCASTING, COMBINED WITH SOUND RECORDING OR REPRODUCING APPARATUS, NESOI.
852792	RECEPTION APPARATUS FOR RADIO-BROADCASTING, COMBINED WITH A CLOCK, NESOI.
852799	RECEPTION APPARATUS FOR RADIO-BROADCASTING, NESOI.
852871	RECEPTION APPARATUS FOR TELEVISION, NOT DESIGNED TO INCORPORATE A VIDEO DISPLAY OR SCREEN.
852872	RECEPTION APPARATUS FOR TELEVISION, COLOR, NESOI.
852910	ANTENNAS AND ANTENNA REFLECTORS AND PARTS THEREOF.
853110	BURGLAR OR FIRE ALARMS AND SIMILAR APPARATUS.
854370	ELECTRICAL MACHINES AND APPARATUS, HAVING INDIVIDUAL FUNCTIONS, NESOI.
854430	INSULATED IGNITION WIRING SETS AND OTHER WIRING SETS FOR VEHICLES, AIRCRAFT AND SHIPS.
870310	PASSENGER MOTOR VEHICLES SPECIALLY DESIGNED FOR TRAVELING ON SNOW; GOLF CARTS AND SIMILAR VEHICLES.
870321	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY NOT OVER 1,000 CC.
870322	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 1,000 CC BUT NOT OVER 1,500 CC.
870323	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 1,500 CC BUT NOT OVER 3,000 CC.
870324	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 3,000 CC.
870331	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY NOT OVER 1,500 CC.
870332	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY OVER 1,500 CC BUT NOT OVER 2,500 CC.
870333	PASSENGER MOTOR VEHICLES WITH COMPRESSION-IGNITION INTERNAL COMBUSTION PISTON ENGINE (DIESEL), CYLINDER CAPACITY OVER 2,500 CC.
870340	PASSENGER MOTOR VEHICLES, WITH BOTH APRK-IG INTRNL COMBUST AND ELECTRIC MOTOR, OTHER THAN THOSE CHARGES BY PLUGGIN TO EXTERNAL ELECTRIC POWER.
870350	MOTOR VEHICLES, WITH BOTH COMPRES-IG INTERNAL COMBUS PISTON ENGINE (DIESEL/SEMI-DIESEL) AND ELECTRIC MOTOR, NOT CHARGED BY PLUG.
870360	MOTOR VEHICLES WITH BOTH SPARK-IG AND ELECTRIC MOTOR, CAPABLE OF CHARGE BY PLUGGING TO EXTNL PWR.

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870370	MOTOR VEHICLES, WITH BOTH COMPRESSION-IGNITION INTERNAL COMBUSTION (DIESEL/SEMI-DIESEL AND ELECTRIC MOTOR, CAPABLE OF CHARGED BY PLUGGING.
870380	MOTOR VEHICLES WITH ONLY ELECTRIC MOTOR, NESOI.
870390	PASSENGER MOTOR VEHICLES, NESOI.
870600	CHASSIS FITTED WITH ENGINES FOR TRACTORS, MOTOR VEHICLES FOR PASSENGERS, GOODS TRANSPORT VEHICLES AND SPECIAL PURPOSE MOTOR VEHICLES, AND VALUED AT \$50000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
870710	BODIES (INCLUDING CABS) FOR MOTOR CARS AND OTHER VEHICLES PRINCIPALLY DESIGNED FOR TRANSPORT OF PERSONS (EXCEPT PUBLIC-TRANSPORT OF PASSENGERS), AND VALUED AT \$50000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871120	MOTORCYCLES AND CYCLES WITH AN AUXILIARY MOTOR, WITH RECIPROCATING INTERNAL COMBUSTION PISTON ENGINE, CYLINDER CAPACITY OVER 50 CC BUT NOT OVER 250 CC, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871130	MOTORCYCLES AND CYCLES WITH AN AUXILIARY MOTOR, WITH RECIPROCATING INTERNAL COMBUSTION PISTON ENGINE, CYLINDER CAPACITY OVER 250 CC NOT OVER 500 CC, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871140	MOTORCYCLES AND CYCLES WITH AN AUXILIARY MOTOR, WITH RECIPROCATING INTERNAL COMBUSTION PISTON ENGINE, CYLINDER CAPACITY OVER 500 CC NOT OVER 800 CC, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871150	MOTORCYCLES AND CYCLES WITH AN AUXILIARY MOTOR WITH RECIPROCATING INTERNAL COMBUSTION PISTON ENGINE, CYLINDER CAPACITY OVER 800 CC, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871160	MOTORCYCLES WITH ELECTRIC MOTOR FOR PROPULSION, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871190	MOTORCYCLES AND CYCLES FITTED WITH AN AUXILIARY MOTORS, NESOI; SIDE-CARS, AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
871410	PARTS AND ACCESSORIES OF MOTORCYCLES (INCLUDING MOPEDS), AND VALUED AT \$5000 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
902000	BREATHING APPLIANCES NESOI AND GAS MASKS HAVING MECHANICAL PARTS AND/OR REPLACEABLE FILTERS; PARTS AND ACCESSORIES THEREOF.
910111	WRIST WATCHES, BATTERY POWERED, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), WITH MECHANICAL DISPLAY ONLY, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
910119	WRIST WATCHES, BATTERY POWERED, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), WITH DISPLAY NESOI, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
910121	WRIST WATCHES, NOT BATTERY POWERED, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), WITH AUTOMATIC WINDING, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
910129	WRIST WATCHES, NOT BATTERY POWERED, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), WITHOUT AUTOMATIC WINDING, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
910191	POCKET WATCHES AND OTHER WATCHES, EXCEPT WRIST WATCHES, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), ELECTRICALLY POWERED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
910199	POCKET WATCHES AND OTHER WATCHES, EXCEPT WRIST WATCHES, WITH CASES OF PRECIOUS METAL (OR OF METAL CLAD WITH PRECIOUS METAL), NOT BATTERY POWERED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
911110	WATCH CASES OF PRECIOUS METAL OR OF METAL CLAD WITH PRECIOUS METAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
911190	PARTS FOR WATCH CASES OF PRECIOUS METAL, BASE METAL OR OF OTHER MATERIALS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
911310	WATCH STRAPS, WATCH BANDS AND WATCH BRACELETS, AND PARTS THERE OF, OF PRECIOUS METAL OR OF METAL CLAD WITH PRECIOUS METAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
920120	GRAND PIANOS.
960110	WORKED IVORY AND ARTICLES OF IVORY.
960190	WORKED BONE, TORTOISE-SHELL, HORN, ANTLERS, CORAL, MOTHER-OF-PEARL AND OTHER ANIMAL CARVING MATERIAL, AND ARTICLES OF THESE MATERIALS, NESOI.
960200	WORKED VEGETABLE OR MINERAL CARVING MATERIALS ETC.; MOLDED OR CARVED ARTICLES OF WAX, STEARIN, GUM, RESIN ETC. NESOI; UNHARDENED GELATIN AND ARTICLES.
960330	ARTISTS' BRUSHES, WRITING BRUSHES AND SIMILAR BRUSHES FOR THE APPLICATION OF COSMETICS.
960830	FOUNTAIN PENS, STYLOGRAPH PENS AND OTHER PENS.
961620	POWDER PUFFS AND PADS FOR APPLYING COSMETICS AND TOILET PREPARATIONS.
970121	PAINTINGS, DRAWINGS AND PASTELS, HAND EXECUTED WORKS OF ART, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970122	COLLAGES AND SIMILAR DECORATIVE PLAQUES, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970129	COLLAGES AND SIMILAR DECORATIVE PLAQUES, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970191	PAINTINGS, DRAWINGS AND PASTELS, HAND EXECUTED WORKS OF ART, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970192	COLLAGES AND SIMILAR DECORATIVE PLAQUES, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.



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970199	COLLAGES AND SIMILAR DECORATIVE PLAQUES, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970210	ORIGINAL ENGRAVINGS, PRINTS AND LITHOGRAPHS, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970290	ORIGINAL ENGRAVINGS, PRINTS AND LITHOGRAPHS, FRAMED OR NOT FRAMED, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970310	ORIGINAL SCULPTURES AND STATUARY, IN ANY MATERIAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970390	ORIGINAL SCULPTURES AND STATUARY, IN ANY MATERIAL, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970400	POSTAGE OR REVENUE STAMPS, STAMP-POSTMARKS, FIRST-DAY COVERS, POSTAL STATIONARY (STAMPED) ETC., USED, OR IF UNUSED NOT OF CURRENT OR NEW ISSUE, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970510	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970521	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970522	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970529	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970531	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970539	COLLECTIONS AND COLLECTORS' PIECES OF ZOOLOGICAL, BOTANICAL, MINERALOGICAL, HISTORICAL, ARCHAEOLOGICAL, NUMISMATIC OR OTHER INTEREST, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970610	ANTIQUES OF AN AGE EXCEEDING ONE HUNDRED YEARS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.
970690	ANTIQUES OF AN AGE EXCEEDING ONE HUNDRED YEARS, AND VALUED AT \$300 OR GREATER PER UNIT WHOLESALE PRICE IN THE U.S.

- 13. Supplement no. 6 to part 746 is amended by:
- a. Revising the second and last sentences of the introductory text;
- b. Revising paragraphs (a)(40) and (41);
- c. Adding paragraphs (a)(42) through (45);
- d. Revising paragraph (e)(3); and
- e. Revising paragraph (f) heading and introductory text, paragraph (f)(3), and Note 6 to paragraph (f).

The addition and revisions read as follows:

**Supplement No. 6 to Part 746—Russian and Belarusian Industry Sector Sanctions Pursuant to § 746.5(a)(1)(iii)**

\* \* \* These items may be useful for Russia's chemical and biological weapons production capabilities or may be diverted from Belarus to Russia for these or other activities of concern. \* \* \* In addition, paragraph (g) of supplement no. 6 to part 746 identifies equipment and other items that BIS has determined are not manufactured in Russia or are otherwise important to Russia in developing advanced production and development capabilities to enable advanced manufacturing across a number of industries or may be diverted from Belarus to Russia for these or other activities of concern.

(a) \* \* \*

(40) Triethylamine (CAS 121-44-8);

- (41) Trimethylamine (CAS 75-50-3);
- (42) Lithium chloride (CAS 7447-41-8);
- (43) Lithium chloride hydrate (CAS 85144-11-2);
- (44) Lithium chloride monohydrate (CAS 16712-20-2); or
- (45) Lithium carbonate (CAS 554-13-2).

\* \* \* \* \*

(e) \* \* \*

(3) Assay kits and reagents for nucleotide or peptide isolation, extraction, or purification, n.e.s.;

\* \* \* \* \*

(f) *Equipment and consumable* “materials.

This paragraph (f) identifies additional equipment and consumable “materials” that BIS has determined are not manufactured in Russia. Therefore, the implementation of restrictive export controls on these items by the United States and our allies will economically impact Russia and significantly hinder Russia's CBW production capabilities.

\* \* \* \* \*

(3) Laboratory equipment, including “components,” “parts,” “accessories,” and consumable “materials” for such equipment, for the analysis or detection, destructive or non-destructive, of chemical substances, n.e.s.;

\* \* \* \* \*

**Note 6 to paragraph (f):** Consistent with the definitions in part 772 of the EAR,

“components,” “parts,” “accessories,” and “materials” include consumables.

\* \* \* \* \*

- 14. Supplement no. 7 to part 746 is amended by:

- a. Revising the heading;
- b. Revising the second sentence of the introductory text;
- c. Revising the first sentence of paragraph (b); and
- d. Adding, in the table, in numerical order, the entry “854800.”

The revisions and addition read as follows:

**Supplement No. 7 to Part 746—Items That Require a License Under § 746.6 When Destined to the Temporarily Occupied Crimea Region of Ukraine, Under § 746.7 When Destined to Iran, and Under § 746.8 When Destined to Russia or Belarus**

\* \* \* Also see paragraph (f) of § 734.9 of the EAR for the Russia/Belarus/Temporarily occupied Crimea region of Ukraine Foreign Direct Product (FDP) rule and paragraph (j) for the Iran FDP rule. \* \* \*

\* \* \* \* \*

(b) The items classified under the provisions identified in the HTS-6 Code column of this supplement are subject to the license requirements under §§ 746.6(a)(1)(ii), 746.7(a)(1)(ii) and (iii), and 746.8(a)(2). \* \* \*

HTS-6 Codes	HTS Description
854800 .....	ELECTRICAL PARTS OF MACHINERY OR APPARATUS, NESOI

**PART 750—APPLICATION PROCESSING, ISSUANCE AND/OR DENIAL**

■ 15. The authority citation for 15 CFR part 750 continues to read as follows:

**Authority:** 50 U.S.C. 4801–4852; 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; Sec. 1503, Pub. L. 108–11, 117 Stat. 559; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13637, 78 FR 16129, 3 CFR, 2013 Comp., p. 223; Presidential Determination 2003–23, 68 FR 26459, 3 CFR, 2004 Comp., p. 320.

■ 16. Section 750.7 is amended by adding paragraph (c)(xi) to read as follows:

**§ 750.7 Issuance of licenses.**

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(xi) Addition of a new HTS-6 Code identified under supplements nos. 2, 4, or 5 to part 746 or item identified under supplement no. 6 to part 746 for export or reexport to or transfer within Russia or Belarus, provided the criteria of this paragraph are met.

(A) The end use of the BIS license is for the divestiture of items within Russia or Belarus or their transfer within Russia or Belarus for the purpose of reexporting such items from Russia or Belarus;

(B) The new HTS-6 Code under supplements nos. 2, 4, or 5 to part 746 or item identified under supplement no.

6 to part 746 was added to the EAR after the validation date of the BIS license;

(C) The BIS license has not yet expired; and

(D) The export, reexport, or in-country transfer of these additional HTS-6 Codes under supplements nos. 2, 4, or 5 to part 746 or items identified under supplement no. 6 to part 746 will not exceed the shipping tolerance of the original license or the number of units authorized under the original license.

\* \* \* \* \*

**Thea D. Rozman Kendler,**  
*Assistant Secretary for Export Administration.*

[FR Doc. 2023–10774 Filed 5–19–23; 8:45 am]

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Part V

Department of Homeland Security

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Transportation Security Administration

49 CFR Parts 1500, 1530, 1570, et al.

Vetting of Certain Surface Transportation Employees; Proposed Rule

## DEPARTMENT OF HOMELAND SECURITY

### Transportation Security Administration

49 CFR Parts 1500, 1530, 1570, 1572, 1580, 1582, 1584

[Docket No. TSA–2023–0001]

RIN 1652–AA69

### Vetting of Certain Surface Transportation Employees

**AGENCY:** Transportation Security Administration, DHS.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The Transportation Security Administration (TSA) is proposing a regulation to implement provisions of the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Act) that require security vetting of certain public transportation, railroad, and over-the-road-bus (OTRB) employees. In accordance with the 9/11 Act, TSA proposes to require security-sensitive employees of certain public transportation operators and railroads to undergo a Level 2 security threat assessment (STA) that includes an immigration check and terrorism watchlist check to determine whether the applicant may pose a security threat. Further, TSA proposes to require security coordinators of certain public transportation, railroad, and OTRB operators to undergo a Level 3 STA, which includes the Level 2 check plus a criminal history records check. TSA proposes appeal and waiver procedures for individuals who are adversely impacted by the vetting. Finally, TSA proposes to establish user fees to recover TSA's costs for vetting, as required by law.

**DATES:** Submit comments on or August 21, 2023.

**ADDRESSES:** You may submit comments, identified by the TSA docket number to this rulemaking, to the Federal Docket Management System (FDMS), a government-wide, electronic docket management system. To avoid duplication, please use only one of the following methods:

- *Electronic Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the online instructions for submitting comments.

- *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12–140, Washington, DC 20590–0001. The U.S. Department of Transportation (DOT), which maintains

and processes TSA's official regulatory dockets, will scan the submission and post it to FDMS.

- *Fax:* (202) 493–2251.

See **SUPPLEMENTARY INFORMATION** section for format and other information about comment submissions.

**FOR FURTHER INFORMATION CONTACT:** *For program questions:* Victor Parker, Surface Division, Policy, Plans, and Engagement, TSA–28, Transportation Security Administration, 6595 Springfield Center Drive, Springfield, VA 20598–6002; telephone (571) 227–1039; email [VettingPolicy@tsa.dhs.gov](mailto:VettingPolicy@tsa.dhs.gov).

*For legal questions:* Christine Beyer, Chief Counsel's office, TSA–2, Transportation Security Administration, 6595 Springfield Center Drive, Springfield, VA 20598–6002; telephone (571) 227–3653; email [christine.beyer@tsa.dhs.gov](mailto:christine.beyer@tsa.dhs.gov).

### SUPPLEMENTARY INFORMATION:

#### Public Participation

TSA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from this rulemaking action, as well as on TSA's collections of information under the Paperwork Reduction Act as described further below. You may submit comments, identified by the TSA docket number for this rulemaking, to the **ADDRESSES** noted above. With each comment, please include this docket number at the beginning of your comments. You may submit comments and material electronically, in person, by mail, or fax as provided under **ADDRESSES**, but please submit your comments and material by only one means. If you submit comments by mail or in person submit them in an unbound format, no larger than 8.5 by 11 inches, suitable for copying and electronic filing. If you would like TSA to acknowledge receipt of comments submitted by mail, include with your comments a self-addressed, stamped postcard or envelope on which the docket number appears. TSA will stamp the date on the postcard and we will mail it to you.

All comments, except those that include confidential information and sensitive security information (SSI)<sup>1</sup> will be posted to [https://](https://www.regulations.gov)

<sup>1</sup> "Sensitive Security Information" or "SSI" is information obtained or developed in the conduct of security activities, the disclosure of which would constitute an unwarranted invasion of privacy, reveal trade secrets or privileged or confidential information, or be detrimental to the security of transportation. The protection of SSI is governed by 49 CFR part 1520.

[www.regulations.gov](http://www.regulations.gov), and will include any personal information you have provided. Should you wish your personally identifiable information redacted prior to filing in the docket, please clearly indicate this request in your submission. TSA will consider all comments that are in the docket on or before the closing date for comments and will consider comments filed late to the extent practicable. The docket is available for public inspection before and after the comment closing date.

#### *Handling of Confidential or Proprietary Information and SSI Submitted in Public Comments*

Do not submit comments that include trade secrets, confidential commercial or financial information, or SSI to the public regulatory docket. Comments containing this type of information should be submitted separately from other comments, appropriately marked as containing such information, and submitted by mail to one of the addresses listed in the **FOR FURTHER INFORMATION CONTACT** section. TSA will take the following actions for all submissions containing SSI:

- TSA will not place comments containing SSI in the public docket and will handle them in accordance with applicable safeguards and restrictions on access.

- TSA will hold documents containing SSI, confidential business information, or trade secrets in a separate file to which the public does not have access, and place a note in the public docket explaining that commenters have submitted such documents.

- TSA may include a redacted version of the comment in the public docket.

- TSA will treat requests to examine or copy information that is not in the public docket as any other request under the Freedom of Information Act (FOIA) (5 U.S.C. 552) and the Department of Homeland Security's (DHS') FOIA regulation found in 6 CFR part 5.

#### *Privacy Act*

Please be aware that anyone is able to search the electronic form of all comments in any of our dockets by the name of the individual who submitted (or signed the comment (e.g., if submitted by an association, business, labor union, etc.)) For more about privacy and the docket, review the Privacy and Security Notice for the FDMS at <https://www.regulations.gov/privacyNotice>, as well as the System of Records Notice DOT/ALL 14—Federal Docket Management System (73 FR

3316, January 17, 2008) and the System of Records Notice DHS/ALL 044—eRulemaking (85 FR 14226, March 11, 2020).

### Reviewing Docket Comments and Documents

You can review TSA's electronic public docket at <https://www.regulations.gov>. In addition, DOT's Docket Management Facility provides a physical facility, staff, equipment, and assistance to the public. To obtain assistance or to review items in TSA's public docket, you may visit this facility between 9 a.m. and 5 p.m., Monday through Friday, excluding legal holidays, or call (202) 366-9826. This DOT operations facility is located in the West Building Ground Floor, Room W12-140 at 1200 New Jersey Avenue SE, Washington, DC 20590.

You can find an electronic copy of rulemaking documents through the internet by searching the electronic FDMS web page at <https://www.regulations.gov>; or at <https://www.federalregister.gov>. In addition, copies are available by writing or calling the individual in the **FOR FURTHER INFORMATION CONTACT** section. Make sure to identify the docket number of this rulemaking.

### Abbreviations and Terms Used in This Document

ALJ—Administrative Law Judge  
 ATSA—Aviation and Transportation Security Act  
 CBP—U.S. Customs and Border Protection  
 CFR—Code of Federal Regulations  
 CHRC—Criminal History Records Check  
 CJIS—Criminal Justice Information Services  
 DHS—U.S. Department of Homeland Security  
 DOE—Determination of Eligibility  
 ESVP—Enrollment Services and Vetting Programs  
 FAST—Free and Secure Trade Program  
 FBI—Federal Bureau of Investigation  
 FDI—Final Determination of Ineligibility  
 HME—Hazardous Materials Endorsement  
 IDENT—Automated Biometrics Identification System  
 NPRM—Notice of Proposed Rulemaking  
 OTRB—Over-the-Road Bus  
 PDI—Preliminary Determination of Ineligibility  
 PDIIR—Preliminary Determination of Ineligibility with Immediate Revocation  
 SAVE—Systematic Alien Verification for Entitlements Program  
 SENTRI—Secure Electronic Network for Travelers Rapid Inspection Program  
 SSI—Sensitive Security Information  
 STA—Security Threat Assessment  
 TSA—Transportation Security Administration  
 TWIC—Transportation Worker Identification Credential  
 U.S.C.—United States Code  
 USCIS—U.S. Citizenship and Immigration Services

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### I. Executive Summary

#### A. Purpose of the Regulation

This proposed rulemaking would serve three purposes:

(1) *Surface transportation security vetting.* The NPRM proposes to implement requirements in the 9/11 Act<sup>2</sup> to vet certain public transportation, railroad, and OTRB employees:

- Conduct a “name-based security background check against the consolidated terrorist watchlist and an immigration check” for frontline public transportation employees<sup>3</sup> and frontline railroad employees.<sup>4</sup>
- Require security coordinators of railroads<sup>5</sup> and OTRBs<sup>6</sup> to be U.S. citizens, unless TSA waives this requirement after an appropriate background check of the individual and a satisfactory review of the consolidated terrorist watchlist.

(2) *Fees.* TSA is proposing an equitable fee schedule to recover the costs of vetting services. TSA must sustain vetting programs, like those proposed in this rulemaking, through user fees in accordance with 6 U.S.C. 469, Fees for Credentialing and Background Investigations in Transportation.

(3) *Redress.* The 9/11 Act provides that if TSA issues a regulation requiring operators to conduct vetting of public transportation<sup>7</sup> and railroad employees,<sup>8</sup> TSA must require the operators to provide appeal and waiver procedures, like the procedures TSA

<sup>2</sup> The Implementing Recommendations of the 9/11 Commission Act, Public Law 110-53 (121 Stat. 266; Aug. 3, 2007).

<sup>3</sup> 9/11 Act, sec. 1411; codified at 6 U.S.C. 1140.

<sup>4</sup> 9/11 Act, sec. 1520.

<sup>5</sup> 9/11 Act, sec. 1512; codified at 6 U.S.C. 1162(e)(2).

<sup>6</sup> 9/11 Act, sec. 1531; codified at 6 U.S.C. 1181.

<sup>7</sup> 9/11 Act sec. 1414; codified at 6 U.S.C. 1143(d).

<sup>8</sup> 9/11 Act sec. 1522; codified at 6 U.S.C. 1170(d).

established in the Transportation Worker Identification Credential (TWIC) program in accordance with 46 U.S.C. 70105 and codified at 49 CFR parts 1515, 1572. TSA proposes appeals, waivers, review by Administrative Law Judges (ALJs), and review by the TSA Final Decision Maker for individuals who are adversely affected by the vetting.

*B. Summary of Major Provisions*

In accordance with the 9/11 Act and risk-based principles, TSA proposes to require frontline or “security-sensitive” employees of public transportation and railroad operators to undergo a Level 2 STA, which includes an immigration

check and a terrorism check and other analyses (terrorism/other analyses).<sup>9</sup> Specifically, sections 1411 and 1520 of the 9/11 Act require TSA to conduct terrorist and immigration status vetting of public transportation and railroad employees, similar to the check TSA conducted in 2006 in the maritime sector. In sections 1143 and 1170 of the Act, Congress defines a security background check as vetting that includes criminal, immigration and terrorist checks, and provides that if TSA issues a rulemaking to require operators to conduct security background checks, TSA must require use of the criminal standards and

redress required by 46 U.S.C. 70105, and 49 CFR part 1572.

Further, TSA proposes to require security coordinators of public transportation, railroad, and OTRB operators to complete a Level 3 STA, which includes an immigration check, criminal check, and terrorism/other analyses check. Table 1 below provides a summary of these proposed vetting requirements. Also, TSA proposes a robust redress process for individuals who are deemed ineligible for a position as a result of the vetting, to ensure that they are not disqualified in error. Finally, TSA proposes user fees to cover the costs of TSA’s vetting, as required by statute.<sup>10</sup>

TABLE 1—AFFECTED POPULATION BY MODE AND STA REQUIREMENT

Mode	Risk level	Affected population	Proposed rule requirements		
			Terrorism/other analyses	Immigration check	CHRC
Freight Rail	High Risk	Security-Sensitive Employees	<input type="checkbox"/>	<input type="checkbox"/>	
		Security Coordinators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Non-High-Risk	Security-Sensitive Employees			
		Security Coordinators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PTPR	High-Risk	Security-Sensitive Employees	<input type="checkbox"/>	<input type="checkbox"/>	
		Security Coordinators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Non-High-Risk	Security-Sensitive Employees			
		Security Coordinators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTRB	High-Risk	Security-Sensitive Employees			
		Security Coordinators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Non-High-Risk	Security-Sensitive Employees			
		Security Coordinators			

*C. Costs and Benefits*

Table 2 identifies estimated 10-year costs to certain freight railroad carriers,

public transportation and passenger railroad (PTPR) operators, OTRB

operators, and TSA; and the overall cost of this proposed rule.

TABLE 2—COST OF THE PROPOSED RULE

	Estimated costs (millions, over 10 years, discounted at 7 percent)
Freight Railroad	\$31.43
Public Transportation and Passenger Railroads (PTPR)	52.96
OTRB	0.92
TSA	1.27
<b>Total</b>	<b>86.58</b>

<sup>9</sup>This portion of the STA is called “terrorism check and other analyses.” This portion of the STA may include searches of many data sources, such

as the consolidated terrorist watchlist (TSDB), U.S. Marshal’s Service wants and warrants, U.S.

Department of State lost and stolen passports, and Interpol.

<sup>10</sup> See 6 U.S.C. 469.

As compared to attacks carried out by passengers, attacks carried out by employees pose a higher likelihood of success and/or a larger impact due to employees' knowledge of the systems, infrastructure, vulnerabilities and operations. Also, employees possess unique access to critical operations and areas, which permits them to move with ease in sensitive areas where similar actions by passengers would be more readily identified as suspicious activity, and increases the opportunity and confidence to commit an attack. Known or suspected terrorists (KSTs) are more likely to be responsible for a disproportionate number of all attacks as compared to their proportion of the population, and thus moving KSTs and other higher-risk individuals out of the 'insider' positions employees hold reduces risk, while affecting a very small percentage of all employees. Initial vetting inhibits applicants or existing employees from commencing or continuing their employment, which deters their ability to carry out an act. Recurrent vetting ensures employees who become threats can be removed quickly, reducing the overall net risk to this industry. While it is not possible to quantify the net risk reduction employee vetting creates, TSA's comprehensive vetting of transportation workers has effectively identified insider threats. The effort creates a meaningful reduction of risk of an insider attack, which benefits transportation security.

## II. Background

### A. Statutory and Regulatory History

Following the terrorist attacks of September 11, 2001, Congress created the National Commission on Terrorist Attacks Upon the United States (9/11 Commission).<sup>11</sup> The 9/11 Commission investigated the facts and circumstances relating to the attacks, and, on July 22, 2004, issued its Report.<sup>12</sup>

In the Report, the 9/11 Commission recognized that transportation involves more than just aviation, noting that "[a]bout 6,000 agencies provide transit services through buses, subways, ferries, and light-rail service to about 14 million Americans."<sup>13</sup> The 9/11 Commission also recognized that "[o]pportunities to do harm are as great, or greater, in maritime or surface transportation" as they are in aviation.<sup>14</sup> The Commission

specifically noted the "use of insiders" as a possible terrorist tactic.<sup>15</sup> The Commission included in its report numerous recommendations for further action by the U.S. Government and other actors.<sup>16</sup>

In the 9/11 Act, Congress implemented many of the 9/11 Commission's recommendations. Congress requires TSA to issue regulations on security training, vetting, vulnerability assessments, and security plans for surface transportation entities. TSA is complying with the statute by issuing separate, but related rulemakings.<sup>17</sup> This rulemaking addresses the 9/11 Act requirements to conduct "security background checks" of certain public transportation, railroad carrier, and OTRB employees. For purposes of this rulemaking and consistent with common vetting terminology, TSA uses the term "security threat assessment (STA)" in place of "security background checks" and the terms have the same meaning.

The 9/11 Act requires TSA to evaluate an individual in the STA process to identify "individuals who may pose a threat to transportation security or national security, or of terrorism."<sup>18</sup> Individuals who may pose such threats are not eligible to perform security-sensitive or security coordinator functions. TSA proposes to use this standard set forth in the 9/11 Act for all individuals who apply for an STA under this rulemaking.

Under the 9/11 Act, TSA must conduct an STA of frontline public transportation employees<sup>19</sup> and railroad employees<sup>20</sup> that includes a terrorism and immigration check. TSA calls this a Level 2 check. The 9/11 Act does not require a Level 2 check of frontline OTRB employees. The 9/11 Act also states that public transportation<sup>21</sup> and railroad<sup>22</sup> employees who are subject to security vetting should have an adequate redress process available to them to ensure that they are not removed or deemed ineligible in error. Finally, the 9/11 Act requires security coordinators of railroads<sup>23</sup> and OTRB<sup>24</sup> owner/operators to be U.S. citizens,

unless TSA waives this requirement after conducting an appropriate STA.

TSA has extensive responsibility for and experience in vetting individuals who access the nation's transportation system. TSA has broad general authority to "require background checks for airport security screening personnel, individuals with access to secure areas of airports, and other transportation security personnel."<sup>25</sup> In addition, there are statutes that require TSA to conduct STAs of specific individuals, such as: (1) certain airport and airline workers;<sup>26</sup> (2) certain merchant mariners and individuals who require unescorted access to secure areas of vessels and maritime facilities;<sup>27</sup> (3) individuals seeking hazardous materials endorsements (HMEs) on commercial driver's licenses issued by the States;<sup>28</sup> and (4) applicants for trusted traveler status to participate in the TSA PreCheck® Application Program.<sup>29</sup>

An STA is an inquiry to confirm an individual's identity and determine whether the individual poses or may pose a security threat to transportation or national security, or of terrorism. Individuals who TSA determines do not to pose a threat may be eligible for access to transportation infrastructure or assets, or other privileges and credentials. An STA consists of one or more checks against certain data sources, which may include terrorist or other government or intelligence watchlists, Interpol, immigration records, and criminal history records. As explained below, the specific checks TSA performs vary depending on the governing statutory requirements and the security needs associated with the access, privilege, or credential the individual seeks. In this NPRM, we propose the vetting standards and redress required by the 9/11 Act. In addition, we propose to conduct recurrent vetting and renewal of the STA every 5 years. The recurrent vetting and STA renewal is not required by the 9/11 Act, but is necessary to create a useful and effective inquiry into these transportation workers.

### B. Specific Provisions

1. Security-Sensitive Employees. Like the 9/11 Act *training* requirements that were the subject of a separate

<sup>11</sup> Title VI, Intelligence Authorization Act for Fiscal Year 2003, Public Law 107-306 (116 Stat. 2383; Nov. 7, 2002).

<sup>12</sup> The 9/11 Commission Report is available at <https://www.9-11commission.gov/>.

<sup>13</sup> Report, p. 390-1.

<sup>14</sup> Report, p. 391.

<sup>15</sup> Report, p. 392.

<sup>16</sup> Report, pp. 367-398.

<sup>17</sup> See Security Training for Surface Transportation Employees Final Rule, 85 FR 16456 (March 23, 2020), as amended by 85 FR 25315 (May 1, 2020), 85 FR 67681 (Oct. 26, 2020), and 86 FR 23629 (May 4, 2021) (Security Training Final Rule).

<sup>18</sup> See 6 U.S.C. 1143(a)(1), 1170(a)(1).

<sup>19</sup> See 6 U.S.C. 1140.

<sup>20</sup> 9/11 Act sec. 1520.

<sup>21</sup> See 6 U.S.C. 1143(d).

<sup>22</sup> See 6 U.S.C. 1170(d).

<sup>23</sup> See 6 U.S.C. 1162(e)(2).

<sup>24</sup> See 6 U.S.C. 1181(e)(2).

<sup>25</sup> See 49 U.S.C. 114(f)(12).

<sup>26</sup> See 49 U.S.C. 44936; 49 CFR 1542.209, 1544.229, 1544.230.

<sup>27</sup> See 46 U.S.C. 70105; 49 CFR part 1572.

<sup>28</sup> See 49 U.S.C. 5103a; 49 CFR part 1572.

<sup>29</sup> See 49 U.S.C. 114 note; 78 FR 72922 (Dec. 4, 2013).

rulemaking,<sup>30</sup> the 9/11 Act *vetting* requirements refer to “frontline” employees (that is, “public transportation frontline employees” in section 1411 and “frontline railroad employees” in section 1520). The 9/11 Act provides definitions for “frontline employee” within each mode of transportation.<sup>31</sup> For instance, the statute defines the term “railroad frontline employees” to mean security personnel, dispatchers, locomotive engineers, conductors, trainmen, other onboard employees, maintenance and maintenance support personnel, bridge tenders, and any other railroad employees that the Secretary of Homeland Security determines should receive security training. The statute provides similar definitions for OTRB and public transportation operations.

As part of the Security Training rulemaking, TSA adopted the term “security-sensitive employees” instead of “frontline employees” to capture the individuals who are subject to the 9/11 Act requirements.<sup>32</sup> TSA analyzed the employees listed in the 9/11 Act’s definitions of “frontline employees” and considered whether employees are in a position to detect suspicious activity because of where they work, their interaction with the public, or their access to information. TSA also considered which individuals may need to know how to report or respond to these potential threats. As a result of this analysis, TSA determined that employees who perform functions with a direct nexus to, or impact on transportation security, should be called “security-sensitive employees” rather than “frontline employees.”

In this rulemaking, consistent with the 9/11 Act (which, as noted above, uses the “frontline employee” terminology with respect to both training and vetting), and the applicability and terminology of the Security Training rulemaking, TSA proposes to implement the requirement to vet “frontline” rail and public transportation employees by issuing vetting regulations that apply to the same population of “security-sensitive” rail and public transportation employees covered by the Security Training rulemaking.<sup>33</sup> The following tables, taken from the Security Training rulemaking, describe the security-sensitive functions that, under this rule, would be subject to new vetting requirements.<sup>34</sup>

TABLE 3—SECURITY-SENSITIVE FUNCTIONS FOR FREIGHT RAIL

Categories	Security-sensitive job functions for freight rail	Examples of job titles applicable to these functions*
A. Operating a vehicle .....	1. Employees who operate or directly control the movements of locomotives or other self-powered rail vehicles. 2. Train conductor, trainman, brakeman, or utility employee or performs acceptance inspections, couples and uncouples rail cars, applies handbrakes, or similar functions. 3. Employees covered under the Federal hours of service laws as “train employees.” See 49 U.S.C. 21101(5) and 21103.	Engineer, conductor.
B. Inspecting and maintaining vehicles.	Employees who inspect or repair rail cars and locomotives .....	Carman, car repairman, car inspector, engineer, conductor.
C. Inspecting or maintaining building or transportation infrastructure.	1. Employees who— a. Maintain, install, or inspect communications and signal equipment. b. Maintain, install, or inspect track and structures, including, but not limited to, bridges, trestles, and tunnels. 2. Employees covered under the Federal hours of service laws as “signal employees.” See 49 U.S.C. 21101(3) and 21104.	Signalman, signal maintainer, trackman, gang foreman, bridge and building laborer, roadmaster, bridge, and building inspector/operator.
D. Controlling dispatch or movement of a vehicle.	1. Employees who— a. Dispatch, direct, or control the movement of trains. b. Operate or supervise the operations of moveable bridges. c. Supervise the activities of train crews, car movements, and switching operations in a yard or terminal. 2. Employees covered under the Federal hours of service laws as “dispatching service employees.” See 49 U.S.C. 21101(2) and 21105.	Yardmaster, dispatcher, block operator, bridge operator.
E. Providing security of the owner/operator’s equipment and property.	Employees who provide for the security of the railroad carrier’s equipment and property, including acting as a railroad police officer (as that term is defined in 49 CFR 207.2).	Police officer, special agent; patrolman; watchman; guard.
F. Loading or unloading cargo or baggage.	Includes, but is not limited to, employees that load or unload hazardous materials .....	Service track employee.
G. Interacting with travelling public (on board a vehicle or within a transportation facility).	Employees of a freight railroad operating in passenger service .....	Conductor, engineer, agent.
H. Complying with security programs or measures, including those required by Federal law.	1. Employees who serve as security coordinators designated in § 1570.201 of this subchapter, as well as any designated alternates or secondary security coordinators. 2. Employees who— a. Conduct training and testing of employees when the training or testing is required by TSA’s security regulations. b. Perform inspections or operations required by § 1580.205 of this subchapter. c. Manage or direct implementation of security plan requirements.	Security coordinator, train master, assistant train master, roadmaster, division roadmaster.

\* These job titles are provided solely as a resource to help understand the functions described; whether an employee must be trained is based upon the function, not the job title.

<sup>30</sup> See Security Training for Surface Transportation Employees Final Rule, 85 FR 16456 (March 23, 2020), as amended by 85 FR 25315 (May 1, 2020), 85 FR 67681 (Oct. 26, 2020), and 86 FR 23629 (May 4, 2021).

<sup>31</sup> See 6 U.S.C. 1151(6) (railroads), 6 U.S.C. 1131(4) (public transportation), and 6 U.S.C. 1151(5) (OTRB).

<sup>32</sup> See 81 FR 91336, 91353–91355; 85 FR 16456, 16475.

<sup>33</sup> See 49 CFR 1580.3, 1582.3, and 1584.3 in the Security Training Final Rule.

<sup>34</sup> Note that we are not providing a chart of the OTRB employees who are considered “security-sensitive” because the statute does not require TSA to conduct STAs of OTRB security-sensitive employees, and TSA has determined that it is unnecessary to impose such a requirement at this time.



TABLE 4—SECURITY-SENSITIVE FUNCTIONS FOR PUBLIC TRANSPORTATION AND PASSENGER RAILROADS

Categories	Security-sensitive job functions for Public Transportation and Passenger Railroads (PTPR)
A. Operating a vehicle .....	1. Employees who— <ol style="list-style-type: none"> <li>a. Operate or control the movements of trains, other rail vehicles, or transit buses.</li> <li>b. Act as train conductor, trainman, brakeman, or utility employee or performs acceptance inspections, couples and uncouples rail cars, applies handbrakes, or similar functions.</li> </ol> 2. Employees covered under the Federal hours of service laws as “train employees.” See 49 U.S.C. 21101(5) and 21103.
B. Inspecting and maintaining vehicles .....	Employees who— <ol style="list-style-type: none"> <li>1. Perform activities related to the diagnosis, inspection, maintenance, adjustment, repair, or overhaul of electrical or mechanical equipment relating to vehicles, including functions performed by mechanics and automotive technicians.</li> <li>2. Provide cleaning services to vehicles owned, operated, or controlled by an owner/operator regulated under this subchapter.</li> </ol>
C. Inspecting or maintaining building or transportation infrastructure.	Employees who— <ol style="list-style-type: none"> <li>1. Maintain, install, or inspect communication systems and signal equipment related to the delivery of transportation services.</li> <li>2. Maintain, install, or inspect track and structures, including, but not limited to, bridges, trestles, and tunnels.</li> <li>3. Provide cleaning services to stations and terminals owned, operated, or controlled by an owner/operator regulated under this subchapter that are accessible to the general public or passengers.</li> <li>4. Provide maintenance services to stations, terminals, yards, tunnels, bridges, and operation control centers owned, operated, or controlled by an owner/operator regulated under this subchapter.</li> <li>5. Employees covered under the Federal hours of service laws as “signal employees.” See 49 U.S.C. 21101(4) and 21104.</li> </ol>
D. Controlling dispatch or movement of a vehicle.	Employees who— <ol style="list-style-type: none"> <li>1. Dispatch, report, transport, receive or deliver orders pertaining to specific vehicles, coordination of transportation schedules, tracking of vehicles and equipment.</li> <li>2. Manage day-to-day management delivery of transportation services and the prevention of, response to, and redress of service disruptions.</li> <li>3. Supervise the activities of train crews, car movements, and switching operations in a yard or terminal.</li> <li>4. Dispatch, direct, or control the movement of trains or buses.</li> <li>5. Operate or supervise the operations of moveable bridges.</li> <li>6. Employees covered under the Federal hours of service laws as “dispatching service employees.” See 49 U.S.C. 21101(2) and 21105.</li> </ol>
E. Providing security of the owner/operator’s equipment and property.	Employees who— <ol style="list-style-type: none"> <li>1. Provide for the security of PTPR equipment and property, including acting as a police officer.</li> <li>2. Patrol and inspect property of an owner/operator regulated under this subchapter to protect the property, personnel, passengers and/or cargo.</li> </ol>
F. Loading or unloading cargo or baggage ...	Employees who load, or oversee loading of, property tendered by or on behalf of a passenger on or off of a portion of a train that will be inaccessible to the passenger while the train is in operation.
G. Interacting with travelling public (on board a vehicle or within a transportation facility).	Employees who provide services to passengers on-board a train or bus, including collecting tickets or cash for fares, providing information, and other similar services. Including: <ol style="list-style-type: none"> <li>1. On-board food or beverage employees.</li> <li>2. Functions on behalf of an owner/operator regulated under this subchapter that require regular interaction with travelling public within a transportation facility, such as ticket agents.</li> </ol>
H. Complying with security programs or measures, including those required by Federal law.	1. Employees who serve as security coordinators designated in § 1570.201 of this subchapter, as well as any designated alternates or secondary security coordinators. 2. Employees who— <ol style="list-style-type: none"> <li>a. Conduct training and testing of employees when the training or testing is required by TSA’s security regulations.</li> <li>b. Manage or direct implementation of security plan requirements.</li> </ol>

The 9/11 Act uses the term ‘employees’ when discussing the individuals who must undergo an STA. However, TSA understands this term to include any individual who performs the security-sensitive functions outlined in the charts above or acts as a security coordinator, regardless of whether they have a strict employer/employee relationship with the operator. If an operator enters into a contract with a company to provide on-board food and beverage service on public transportation, as described in Line G in the chart above, the individuals who perform those security-sensitive services are in positions to create security vulnerabilities regardless of whether they are ‘employees’ or authorized representatives, including contract personnel, of the operator.

TSA defines an authorized representative in 49 CFR 1500.3 as a person who is not a direct employee of

the operator, but is authorized to act on the operator’s behalf to perform required security measures. The term ‘authorized representative’ includes agents, contractors, and subcontractors. Also, TSA defines contractor in 49 CFR 1570.3 as a person or organization that provides a service for an owner/operator regulated under this subchapter consistent with a specific understanding or arrangement. The understanding can be a written contract or an informal arrangement that reflects an ongoing relationship between the parties.

For purposes of this proposed rulemaking, TSA intends that an employee or authorized representative (including contractor) of an operator who performs security-sensitive functions or acts as a security coordinator would be subject to the vetting requirements set forth in the 9/11 Act. TSA believes Congress intends TSA to apply the same level of scrutiny

to employees or authorized representatives (including contractors) who perform these security functions. An alternate view in which an authorized representative performing security functions would not be subject to the STA an employee must undergo for performing the same functions would undermine the purpose of the 9/11 Act provisions and create obvious security risks. In all modes of transportation where TSA requires individuals who perform security functions or have access to secured areas to undergo an STA, an employer/employee relationship is not required to trigger the STA. For purposes of the vetting standards TSA administers, the individual’s access or function that can impact the security of operations is the factor that determines whether an STA is required. If TSA adopted standards in which an employer could evade vetting requirements altogether by using

authorized representatives/contractors, the vetting framework would be a sieve permitting individuals with bad intent to move undetected in the transportation system.

The 9/11 Act provides that TSA must complete a “name-based security background check against the consolidated terrorist watchlist and an immigration status check”<sup>35</sup> that is similar to the threat assessment screening program that TSA conducted for maritime employees and longshoremen pursuant to a notice issued by the U.S. Coast Guard (USCG) in 2006.<sup>36</sup> That Notice required port facility owner/operators to provide biographic information of all longshoremen and other individuals who enter the port regularly on spreadsheets to the USCG. The USCG then delivered the information to TSA, and TSA conducted a name-based terrorism and immigration status check using the biographic information provided. The Notice required facility operators and unions to “provide, on a continuing basis, the above-listed information for all new facility employees or longshoremen in a timely manner.”<sup>37</sup> The use of spreadsheets was necessary because TSA had not yet established enrollment centers to collect the necessary information electronically. TSA conducted this vetting while preparing the TWIC rulemaking that established the enrollment and vetting process it now uses for maritime employees. After publication of the Notice, TSA and USCG issued a joint rulemaking in January 2007 that established the TWIC vetting program. The rule established tiers of vetting, disqualification standards, and the requirement to renew the STA every 5 years. Once the TWIC rule became effective, it supplanted any vetting that was being done under the Notice.

While this process achieved the purpose of conducting vetting of the maritime workforce, it was resource-intensive and subject to errors due to the manual data collection and entry process. Since 2006, TSA’s enrollment and vetting capabilities have matured substantially, and the new electronic processes are faster, more accurate, and more efficient. Also, various terrorist databases administered by other agencies have matured and grown. TSA is better positioned now to collect the necessary data and conduct recurrent<sup>38</sup>

(daily) vetting electronically. Therefore, TSA proposes to conduct the STA called for in the 9/11 Act using the improved procedures and capabilities we now possess and use regularly in other vetting programs. Also, TSA proposes to conduct recurrent vetting of the terrorism/other analysis check for this population, as TSA does for all other vetting programs. A one-time vet of names would be viewed as substandard and the cost reduction would not justify the loss of security benefits. All of the vetting databases change daily, and thus a snapshot of a workforce in place for one day in time serves minimal long-term security benefit. An individual who passes a terrorism check Monday, may be newly identified as a threat and appear on a terrorist watchlist Tuesday. TSA’s recurrent vetting does not require the vetted individual to perform any additional efforts; TSA’s systems simply continue to run the biographic data collected against the watchlists each time they are amended, permitting TSA to conduct an investigation if any new information is discovered during the course of an individual’s authorized access to indicate that they may pose a security threat. While the 9/11 Act does not expressly require recurrent vetting or renewal of the STA, TSA is authorized<sup>39</sup> to use its discretion and expertise in vetting to propose these procedures. Moreover, we believe Congress fully intends that TSA establish programs that are effective in identifying risks to transportation security.

Consistent with the 9/11 Act, TSA proposes to require security-sensitive employees of covered public transportation and railroad operators to undergo a Level 2 check that includes an immigration check and terrorism/other analyses check. For the terrorism/other analyses check, TSA reviews biographic information, documents, and databases to confirm an individual’s identity, and searches government and non-government databases, including terrorist watchlists, criminal wants and warrants, Interpol, and other domestic and international sources, relevant to determining whether an individual may pose or poses a threat to transportation or national security, or of terrorism. If TSA determines that the individual poses or may pose a threat, the individual is not eligible for the security-sensitive position.

TSA conducts the terrorism/other analyses check recurrently for the duration of the STA, which is 5 years in most TSA vetting programs, and we propose the same for surface employees. Thus, if an individual initially “passes” the STA, but is later placed on a watchlist, TSA can quickly take appropriate action to disqualify the worker or otherwise minimize the threat.

The immigration check TSA proposes for security-sensitive employees would verify that the individual is a U.S. citizen or national, or a non-citizen who is a lawful permanent resident, refugee, asylee, lawful nonimmigrant, paroled into the U.S., or is otherwise authorized to work in the U.S. TSA conducts immigration checks by using the U.S. Citizenship and Immigration Services’ (USCIS) Systematic Alien Verification for Entitlements (SAVE) Program. The SAVE Program is a government system designed to assist Federal, State, tribal, and local government agencies in determining an individual’s immigration category to ensure that authorized individuals lawfully receive benefits or licenses.

As noted above, the 9/11 Act does not require TSA to conduct STAs of OTRB security-sensitive employees, and we are not proposing a Level 2 check of these individuals in this NPRM. However, TSA is considering adding that requirement in the final rule and invites comment from industry stakeholders on such a requirement. TSA is concerned that new terrorism-related tactics have emerged since passage of the 9/11 Act, including the use of vehicles in crowds to injure and kill innocent pedestrians. Beginning with the attack in Nice, France in 2016, vehicle ramming attacks have escalated. In 2017, 17 vehicle ramming attacks throughout the world were verified as terrorist-based, resulting in 173 fatalities and 667 injuries.

Moreover, buses, including those used for OTRB routes, are often provided extraordinary access and proximity to special events, athletic games, concerts or shopping venues, as a convenience to event-goers and as a traffic congestion tool for organizers. An “insider,” such as an OTRB driver, would have greater opportunity to harm event attendees by using a vehicle-borne improvised explosive device or simply conducting a ramming attack at passenger staging areas. The opportunity for harm using an OTRB may be greater than with use of a public transportation vehicle because OTRB operations include interstate business, which requires the vehicles to be capable of travelling much greater distances with much

<sup>35</sup> 9/11 Act, sec. 1411, 1520.

<sup>36</sup> 71 FR 25066 (April 28, 2006).

<sup>37</sup> Id. at 25067.

<sup>38</sup> The term ‘recurrent vetting’ means TSA vets a name against the database each time the database

is amended with new or revised information. This typically happens on a daily basis, and often more than once a day. TSA continues to recurrently conduct the terrorism check for the duration of the STA, which is typically 5 years.

<sup>39</sup> See 49 U.S.C. 114(f).

heavier loads than transit buses. As a result, the typical OTRB is larger, heavier, and equipped with underfloor luggage storage areas not found in transit buses. Based upon its design, the OTRB is capable of transporting large volumes of dangerous materials that could be used in a terrorist attack.

TSA estimates that the addition of OTRB security-sensitive employee vetting would affect an additional estimated 47,423 OTRB employees, compared with the current public transportation/passenger rail population of approximately 179,337 and freight rail population estimated at 122,236. TSA estimates that the total annualized cost of compliance would increase by \$2.2 million.

TSA invites comment on requiring Level 2 vetting for OTRB security-sensitive employees as part of this rulemaking. TSA has broad statutory authority to assess the need for and require vetting of transportation workers.<sup>40</sup> Under this authority, TSA may require OTRB workers to undergo the same vetting that we are proposing to require for security-sensitive public transportation and railroad workers. We invite stakeholders to comment on the relative security risks that are associated with OTRB operations, including insider threats and public sector vulnerabilities. Also, TSA invites comment and data on the costs to owner/operators and individuals as a result of new vetting requirements, and ways to reduce costs.

**2. Security Coordinators.** In the Security Training rulemaking, TSA requires covered public transportation, railroad, and OTRB owner/operators to employ security coordinators.<sup>41</sup> Security coordinators perform important security functions, including coordinating the owner/operator's security procedures internally and with appropriate law enforcement and emergency response agencies. These individuals typically have access to SSI, Personally Identifiable Information and sensitive information from government threat briefings, all of which require responsible handling. For these reasons, TSA proposes to require a more comprehensive Level 3 STA for security coordinators. TSA proposes that security coordinators must successfully complete a fingerprint-based criminal history records check (CHRC) in addition to the immigration and terrorism/other analyses checks. TSA

requires security coordinators in other modes of transportation and certain individuals with access to SSI to undergo this more thorough STA as well.

TSA is proposing the same CHRC standards that currently apply in the TWIC and HME programs, codified at 49 CFR part 1572, for the Level 3 STA in this rulemaking. In the 9/11 Act, Congress provided that if TSA chose to require a CHRC for these surface workers, the TWIC/HME standards for CHRCs and redress should apply.<sup>42</sup> Also, TSA proposes to codify the redress procedures in place for TWIC and HME applicants that are currently codified in 49 CFR part 1515, for security coordinators covered by this NPRM. Depending on the nature of the disqualification, individuals may appeal TSA's eligibility decision by asserting that the records on which TSA made its decision are incorrect; apply for a waiver of the criminal standards by asserting that the individual is rehabilitated; appeal TSA's waiver denial to an Administrative Law Judge; or seek review by the TSA Decision Maker.

The 9/11 Act provides that an individual serving as a security coordinator for a rail carrier or an OTRB owner/operator must be a citizen of the United States, unless TSA conducts an STA in place of the citizenship requirement.<sup>43</sup> TSA proposes more thorough vetting for security coordinators, and this level of vetting satisfies the 9/11 Act as a substitute for the U.S. citizenship requirement. The security coordinator vetting requirements would apply to all rail carrier and OTRB security coordinators, including individuals who are not U.S. citizens.

**3. Rap Back and IDENT.** For all STAs that require a CHRC, TSA plans to conduct the CHRC through the Federal Bureau of Investigation (FBI), as is customary. Also, TSA plans to implement the FBI's Criminal Justice Information System (CJIS) "Rap Back" service for these individuals. Rap Back enables TSA to receive new criminal history information after the initial submission of fingerprints. Prior to the implementation of Rap Back, TSA had to submit new fingerprints and fees to obtain any new criminal history on an individual. The Rap Back service

provides a "recurrent" criminal vetting capability that will enhance security significantly by providing TSA with timely criminal history information, rather than waiting for long periods, sometimes several years, to obtain the most recent criminal information. With Rap Back, TSA can determine that an individual who initially passed the CHRC and was eligible for access has become ineligible due to a recent disqualifying criminal offense. Rap Back has become an integral part of a CHRC and is now the industry standard for criminal vetting. TSA has implemented Rap Back for other vetting programs such as airport and aircraft operator employees and TWIC holders, and proposes to use it for the CHRCs that would be conducted under this proposed rule. The implementation of Rap Back will not affect the type or amount of information TSA must collect from each individual at enrollment.

TSA also plans to submit the fingerprints to the Automated Biometrics Identification System (IDENT), which is operated by the DHS's Office of Biometric Identity Management. IDENT is the Departmental biometric repository and provides additional, important information for TSA to use as part of the vetting process.

**4. Identity (ID) Verification.** TSA is proposing to require in-person ID verification at a TSA enrollment center as part of the vetting process. Accurately verifying the identity of each individual whom TSA vets remains one of the most important aspects of combatting insider threats and fraud. In-person ID verification provides a higher level of confidence that individuals are who they claim to be. TSA's enrollment personnel are trained to examine documents for evidence of fraud and may use electronic software that scores the identity documents for fraud. Also, if the documents presented are of concern to the enrollment agents, the agents can flag them for further analysis during the adjudication process, when adjudicators can compare the biographic information presented with other government or public records.

TSA considered proposing an entirely on-line ID verification and enrollment process, particularly where there is no need to collect fingerprints or take a photograph. However, TSA believes on-line ID verification creates opportunities for fraud relative to TSA's capacity to detect fraud at a physical enrollment center. TSA invites comments from stakeholders on potential ways to instill the same or greater level of reliability in on-line ID verification as we have for in-person ID verification.

<sup>40</sup> See 49 U.S.C. 114(f).

<sup>41</sup> See Security Training for Surface Transportation Employees Final Rule, 85 FR 16456 (March 23, 2020), as amended by 85 FR 25315 (May 1, 2020), 85 FR 67681 (Oct. 26, 2020), and 86 FR 23629 (May 4, 2021) (Security Training Final Rule).

<sup>42</sup> See 6 U.S.C. 1143(c)-(d) for public transportation; 6 U.S.C. 1170(c)-(d) for railroads. Because TSA is conducting the vetting, rather than requiring the operator to do so, TSA would implement the redress standards Congress intended to apply to individuals who receive adverse vetting results, and not the operators.

<sup>43</sup> See 6 U.S.C. 1162(e)(2), 1181(e)(2).

5. *Use of TSA enrollment centers.* TSA proposes in this rulemaking to use its established enrollment process for vetting the individuals covered by this rule. TSA operates a network of more than 300 enrollment centers that are widely dispersed throughout the United States and abroad, and currently service TSA's TWIC, HME, and TSA PreCheck® programs. In addition to the stationary sites, TSA's enrollment contractor offers opportunities for setting up mobile enrollment sites at specific workplaces. Each employer would be able to contact TSA's provider directly to discuss the number of employees who must enroll, potential locations, whether the provider would charge a fee for the service, and other details necessary to finalize an on-site, mobile enrollment center. These mobile sites minimize work disruption and employee travel time to an enrollment center. Also, employers can ensure that the entire workforce enrolls in a finite, relatively short period of time.

TSA's contractor also provides employers the capability to conduct their own enrollments. This enrollment method is called an "authorized non-public enrollment capability." If an employer is interested in hosting their own enrollment center to service their employees, they work directly with the contractor to reach a mutually acceptable agreement regarding the requirements and any associated costs for this arrangement. Employers would provide the enrollment center space and resources (such as Trusted Agents to act as enrollment personnel) to operate the enrollment center. The space and personnel must meet the contractual requirements, which include internet connectivity, sufficient furniture, and privacy screens to protect an applicant's personal information as it is entered into the enrollment system. The employer's Trusted Agents would have to undergo a Level 3 STA, given their access to personally identifiable information, just as TSA's contractor Trusted Agents do. TSA's contractor would provide the enrollment hardware, software, and other equipment required to conduct enrollments. Additionally, the contractor would provide training and quality assurance oversight for the authorized non-public enrollment center. The agreement to operate an authorized non-public enrollment center is a contract between the interested employer and TSA's contractor, and not an agreement with TSA directly. Under this scenario, the owner/operators are not 'regulated' by TSA as an enrollment provider, but

work directly with the contractor and ensure that they satisfy the contractual requirements.

TSA considered the alternative of requiring or permitting owner/operators subject to this NPRM to act as enrollment providers, rather than using the TSA enrollment contractor for these services. Under this scenario, the owner/operators would be directly regulated by TSA to meet standards that are similar to the contractual requirements TSA and TSA's enrollment provider have developed. The owner/operators would provide their own trained Trusted Agents to collect information and fees from STA applicants and develop secure connections to TSA's systems that meet all Federal cyber security requirements. The employers would be required to ensure that the Trusted Agents adhere to minimum enrollment standards for verifying identity, protecting personal information, accurately collecting biometric and biographic information, and processing TSA's fees correctly. This alternative would eliminate the need for employees to travel to an enrollment site outside the workplace. However, owner/operators would be subject to compliance inspections and potentially civil penalties if their enrollment procedures were noncompliant. Also, the owner/operators would have to bear the significant costs associated with establishing and maintaining the electronic systems and staff to conduct enrollment. An owner/operator would have to undergo significant system testing, certification, and accreditation to connect to TSA's vetting systems to meet heightened Federal security and privacy requirements, and maintain a high level of security and performance to remain certified. Firewalls would have to be developed and used to ensure that an owner/operator could access only their employee data, and to prevent any damage to TSA's systems if the owner/operator's system malfunctioned. Given the nature of cyber threats and capabilities, TSA's previous experience with shared enrollment roles, and the extremely sensitive information that must be transmitted, TSA is currently unwilling to permit private employers to connect to its vetting systems.

TSA invites public comment on using TSA enrollment services or permitting owner/operators to conduct enrollment for this population.

6. *Vetting structure.* In this rulemaking, TSA proposes to add a new part 1530 where the vetting standards, fees, and redress procedures would be codified. TSA proposes to organize all facets of the vetting process in one part

for the convenience of the parties who must undergo vetting, and to aid in providing consistent standards and fees. TSA currently operates approximately 30 different vetting programs, such as the aviation workers (airport and aircraft owner/operators), TWIC, HME, and TSA PreCheck® programs and proposes to leverage the experience and best practices from them in new part 1530.

As discussed above, TSA proposes three "levels" of STAs, labeled Level 1, Level 2, and Level 3. The "lowest" level STA (Level 1) would provide the minimum vetting TSA would conduct and the "higher" levels (Level 2 and Level 3) would provide increased scrutiny, given statutory requirements and the risks associated with the functions that an individual performs.

This modular, standardized approach would increase the ability for individuals to reuse all or part of an earlier STA to satisfy a later STA requirement. For example, an employee who successfully completes a Level 2 STA for a public transportation agency will be able, in most circumstances, to use that Level 2 STA for a position that requires a Level 2 STA with a railroad operator, as long as the STA has not expired. As described below, all STAs would expire at the end of 5 years. Also, even if the entire STA is not comparable, one or more of the checks that comprise the STA may be re-usable. Consider the example of a security-sensitive employee for a public transportation operator who successfully completes a Level 2 STA, and who subsequently takes a job as a security coordinator, which would require a Level 3 STA under this rulemaking. Even though the Level 2 and Level 3 STAs are different and thus not comparable in their entirety, they nonetheless share certain checks in common. In this example, both levels of STA require an immigration check and terrorism/other analyses check. TSA would be able re-use the earlier terrorism/other analyses and immigration checks (assuming they are still valid) for purposes of the second STA. This means the individual would only have to complete the CHRC required for the Level 3 STA. Note that the Level 3 STA would expire when the Level 2 STA expired.

7. *Effective dates and compliance.* TSA recognizes that this rulemaking would affect many surface transportation owner/operators and many individuals who have not previously had to comply with security vetting requirements. There may be logistical issues involved with achieving initial compliance, including implementing new management

policies, employee education, and related administrative tasks. Therefore, TSA proposes to take a risk-based, phased approach to implementation of this rule. TSA anticipates that there are far fewer security coordinators than security-sensitive workers, and understands that security coordinators play a more critical role in the overall security regime contemplated by the 9/11 Act. For these reasons, TSA proposes an implementation period of 6 months for requirements relating to security coordinators, and 12 months for requirements relating to security-sensitive employees. These timeframes represent our initial judgment about how to balance security against the burden on regulated parties. TSA invites comment on how the rule's requirements should be phased in and become effective, including the appropriate timeframes.

### III. Analysis of Proposed Part 1530

#### A. Introduction

Proposed part 1530 would provide a complete framework for conducting vetting, collecting user fees, and administering appeals and waivers. TSA is using 49 CFR part 1515, which currently applies to individuals required to undergo STAs for TWIC, HME, or Indirect Air Carrier credentials, as a model for proposed part 1530. Proposed 1530 includes organizational and language improvements over part 1515 to address issues that TSA has become aware of over time, but it is substantively very similar to part 1515. The proposed procedures and standards for conducting STAs set out in part 1530 would apply to the surface transportation owner/operators and employees covered by this rulemaking. When finalized, part 1530 will address these surface workers and TSA will take the appropriate regulatory action to apply part 1530 to the populations currently covered by 1515.

We propose to organize part 1530 into six subparts. Subpart A would address topics generally applicable to the STA process, such as definitions. Each subsequent subpart would address a particular stage in the STA process. Subpart B would focus on the individual, addressing topics such as the information he or she must provide when applying for the STA, procedures for verifying the individual's identity and immigration category in the United States, procedures for collecting fingerprints, and establishing the individual's continuing responsibilities throughout the process. Subpart C would be reserved, and subpart D would address the fees necessary to recover the

costs of conducting STAs, and how TSA must process the fees. Subpart E would set out the procedures that TSA proposes to use to conduct the various checks that comprise an STA, such as how TSA would conduct a CHRC or immigration check. Subpart F would establish the standards or criteria that TSA uses to adjudicate the results of the checks conducted during the STA. For example, a section of subpart F would explain the lists of crimes TSA would use to determine whether the individual has a disqualifying criminal conviction. Subpart G would establish the appeal and waiver procedures for individuals who receive an adverse STA result.

#### B. Proposed Subpart A—General

1. *Proposed § 1530.1.* This section would set out the scope of the proposed part. Paragraph (a) would establish that part 1530 applies to individuals required to apply for an STA. In this rulemaking, this includes individuals who perform security-sensitive functions and are required to receive security training under 49 CFR 1580.101 (rail) and 49 CFR 1582.101 (public transportation, passenger rail), or act as security coordinators of owner/operators regulated under parts 1580, 1582, and 1584.

Paragraph (b) would establish that part 1530 applies to operators who must ensure that individuals who perform security-sensitive functions in rail and public transportation, or act as security coordinators for the owner/operators regulated under parts 1580, 1582, and 1584, as established in the Security Training rulemaking.

2. *Proposed § 1530.3.* In this section, TSA proposes definitions for key terms used in part 1530, and proposes that the definitions from parts 1500, 1503, 1540, 1570, and 1572 apply if those terms appear in part 1530. TSA proposes a definition for “individual” to accurately identify the person who applies for the STA, holds a valid STA, or is seeking redress. TSA also proposes definitions for standard redress terms that are consistent with 49 CFR 1515.3 and are largely self-explanatory.

TSA is proposing to add a definition to part 1530 for the term “incarceration.” Currently, TSA has defined “incarceration” as well as “imprisoned/imprisonment” in 49 CFR 1570.3, but TSA believes two definitions for this concept are confusing and unnecessary. We propose to eliminate “imprisoned/imprisonment” and revise the definition of incarceration for part 1530. The new proposed definition of “incarceration” means under the custody of a bureau of prisons and confined to a prison, jail, or

institution for the criminally insane pursuant to a sentence imposed as the result of a criminal conviction or finding of not guilty by reason of insanity. Time spent under the custody of a bureau of prisons or confined or restricted to a half-way house, treatment facility, home incarceration, or similar institution, pursuant to a sentence imposed as the result of a criminal conviction or finding of not guilty by reason of insanity, constitutes incarceration for purposes of this rule. The primary difference between this proposed definition and the current definitions of incarceration and imprisoned in 49 CFR 1570.3 is that the definition of incarceration now explicitly includes a sentence to home confinement as a result of a criminal conviction or finding of not guilty by reason of insanity.

3. *Proposed § 1530.5.* This section would define the three “levels” of STAs that TSA proposes to conduct. Each STA level would be generically defined in terms of the particular kinds of vetting (called “checks”) that comprise the level.

A “Level 1” STA would consist of a terrorism check and other analyses (referred to as ‘terrorism/other analyses check’ throughout the preamble of this NPRM). TSA is not proposing use of a Level 1 STA in this NPRM, but may propose it for other populations in the future. A “Level 2” STA would consist of the terrorism/other analyses and immigration checks. A “Level 3” STA would consist of the checks required for a Level 2 STA, plus a CHRC. In accordance with the 9/11 Act, TSA proposes that the security-sensitive employees, as described in the Surface Training rulemaking and codified in 49 CFR parts 1580, 1582, and 1584, would be required to undergo a Level 2 STA. TSA proposes to require security coordinators under 49 CFR parts 1580, 1582, and 1584 to undergo a Level 3 STA.

4. *Proposed § 1530.7.* This section proposes a standard duration of 5 years for the STAs that TSA conducts and the associated determinations of eligibility (DOE) that TSA issues. This 5-year term begins on the date TSA completes the STA, determines the individual is eligible for the security-sensitive or security coordinator position, and issues a DOE. This timeframe aligns with similar governmental programs such as Top Secret and Q security clearances issued by the Office of Personnel Management; other TSA vetting programs such as TWIC and HME; and U.S. Customs and Border Protection's (CBP)'s Trusted Traveler programs, such as Free and Secure Trade (FAST),

NEXUS, Secure Electronic Network for Travelers Rapid Inspection (SENTRI), and Global Entry.

TSA proposes that the general 5-year term would be subject to two exceptions. The exceptions would apply if: (1) an individual uses a comparable STA completed earlier as the basis of the new STA; or (2) an initially successful individual no longer meets the eligibility standards for the STA. As to the first exception, the duration of the STA would be 5 years from the date on which the initial or comparable check was issued. Therefore, if TSA issues a DOE based on an immigration check conducted 2 years earlier in connection with a previous STA, the duration of the new STA would be 3 years.

The second exception, proposed in paragraph (b), would occur if TSA determines that an approved individual no longer meets the STA eligibility standards. In this case, the STA would expire on the date that TSA serves a Final Determination of Ineligibility (FDI) or a Preliminary Determination of Ineligibility with Immediate Revocation (PDIIR) on the individual. Issuance of an FDI means that the adjudication on any redress processes has run its course and TSA has finalized its determination that the individual does not meet the STA standards. In such cases, the DOE is no longer valid, and is deemed expired. As explained in the discussion of proposed § 1530.417 below, TSA issues a PDIIR when it determines that an imminent security threat may exist and the DOE must be revoked immediately.

Paragraph (b)(3) would apply to individuals who have successfully completed a Level 3 STA, but who subsequently are indicted, convicted, or found not guilty by reason of insanity, of any of the disqualifying crimes under proposed § 1530.503. These individuals would no longer meet the STA standards as of the date of indictment, conviction, or finding of not guilty by reason of insanity. Paragraph (b)(3), therefore, provides notice that the DOE of such an individual expires as of the date of indictment, conviction, or finding, regardless of whether TSA has yet issued an FDI or PDIIR.

Paragraph (b)(4) would apply to individuals who have been issued a DOE, but whose immigration category subsequently changes and no longer meet the standards in section 1530.505. Paragraph (b)(4) provides notice that the DOE of such an individual expires as of the date that individual no longer meets the immigration standard, regardless of whether TSA has yet issued an FDI or PDIIR.

5. *Proposed § 1530.9.* Paragraph (a)(1) would forbid any person from making,

or causing to be made, fraudulent or intentionally false statements in documents required by, or used to show compliance with, proposed part 1530. Paragraph (a)(2) would forbid any person from making or causing to be made, for fraudulent purposes, any reproduction or alteration of any report, record, security program, access medium, identification medium, biometric data (fingerprints or photographs), or credential issued under proposed part 1530. The purpose of paragraph (a) is to provide a regulatory basis for enforcement action against a person who takes these actions, which undermine transportation security.

Paragraph (b) explains that anyone who violates paragraph (a) is ineligible for the access, privileges, or credential associated with the STA.

6. *Proposed § 1530.11.* This section would forbid the fraudulent use of, or representation concerning, a DOE or STA conducted under part 1530. Paragraph (a) would forbid the use, or attempted use, of an STA issued or conducted for another person. Paragraph (b) would forbid a person from causing or attempting to cause another to violate paragraph (a). Collectively, these provisions are intended to protect the integrity and reliability of STAs. Paragraph (c) would establish that any person who violates this section is ineligible for the access, privileges, or credential associated with the STA.

7. *Proposed § 1530.13.* Paragraph (a) pertains to compliance, inspection, and enforcement activities associated with the vetting process. Specifically, TSA proposes that each individual who is required to undergo an STA, and each owner/operator whose employees or authorized representatives must undergo an STA, must permit DHS, at any time or place, to make inspections or tests, including the copying of records, to determine compliance with this part and part 1520, which pertains to sensitive security information. Paragraph (b) would provide that TSA may require each person with responsibilities under proposed part 1530 to provide evidence of compliance with parts 1530 and 1520, including copies of records.

#### *C. Proposed Subpart B—Individual's Enrollment Requirements and Continuing Responsibilities*

1. *Introduction.* Proposed subpart B would focus on the information the individual must provide when applying for the STA. Subpart B would also establish the individual's continuing responsibilities throughout the duration

of the STA, such as disclosing any new disqualifying information.

TSA must collect and process information, documents, and fees from individuals in order to conduct the checks that make up an STA. TSA refers generally to this part of the STA as "processing." Subpart B proposes the procedures TSA would use in the enrollment process. TSA uses this enrollment model in existing vetting programs, such as for TWIC and HME applicants under part 1572, and has a high level of confidence in this approach. TSA operates over 300 enrollment sites throughout the United States and abroad<sup>44</sup> where individuals who are required to undergo certain STAs go to provide biographic, documentary, and if necessary, biometric information. Many of these individuals also have the option to provide some of this information online. The enrollment method set out in proposed subpart B has been designed to provide as much flexibility as possible for individuals and their employers, while maintaining efficient, manageable, and secure interaction with TSA systems.

TSA generally uses a contractor to provide enrollment services and, throughout this document, we refer to "TSA" to include TSA's contractor engaged in enrollment activities. Through the contracting process, TSA can provide cost-effective services to a large number of individuals at all sorts of locations. A TSA contractor under this proposed rulemaking would perform functions similar to the functions performed by a "TSA Agent" under current 49 CFR part 1572, subparts E and F, for the current HME and TWIC programs. TSA conducts a comprehensive Level 3 STA on these agents before they may work at a TSA enrollment center.

The proposed rule offers optional enrollment processes through the TSA contractor separate from the alternative in which enrollment is completely performed by the regulated party. To maximize the benefits of TSA-run enrollment services and minimize employee time away from work to enroll, TSA's enrollment provider may establish "mobile enrollment" sites at particular workplaces where a large volume of individuals need to apply for an STA. Also, the enrollment provider may enter into agreements with a private employer to share some enrollment duties at the workplace, and

<sup>44</sup> A complete list of the more than 300 enrollment centers, along with information about the locations, hours of service, contact information, etc., will be made available on the TSA website.

whether the provider would charge a fee for this service.

As discussed in greater detail above in section II.B.5., TSA considered the alternative of requiring or permitting owner/operators subject to this NPRM to act as enrollment providers, providing their own trained and vetted “trusted agents” to collect information and fees from STA applicants, verify their identity, and send all information through secure pathways to TSA. Under this alternative, the employers would be required to ensure that the trusted agents adhere to minimum enrollment standards for verifying identity, protecting privacy information, accurately collecting biometric and biographic information, and processing TSA’s fees correctly. This alternative would eliminate the need for employees to travel to an enrollment site outside the workplace. However, owner/operators would also bear the significant costs required to establish and maintain secure systems and the staff to conduct enrollment.

TSA invites public comment on the use of TSA enrollment services, and the alternative to permit owner/operators to conduct enrollment for this population.

2. *Proposed § 1530.101.* Paragraph (a) would provide a road map to the section. Paragraph (b) would list the biographic information and copies of documents that each STA applicant must provide. Paragraphs (b)(1)–(9) would require standard items of biographic information, such as name, address, gender, date of birth, and country of citizenship, which are necessary to identify the individual conclusively and to accomplish the vetting process.

Paragraph (b)(10) would require the individual’s employer information, including address, telephone number, and facsimile number (if available), which are important if TSA needs to take follow-up action regarding the individual. For example, if an individual “passes” initial vetting as a security-sensitive employee, but is subsequently disqualified, TSA would have to contact the relevant owner/operator to communicate that the individual is no longer authorized to work as a security-sensitive employee.

Paragraph (b)(11) is related to the immigration check explained in the discussion of the standards in subpart F of part 1530. The purpose of this proposed requirement is to obtain documentary evidence to improve the reliability of the immigration check. Under paragraph (b)(11), each individual would be required at the time of the STA application, to present documentation in a form and manner

specified by TSA, to verify the immigration category they maintain. For individuals claiming to be U.S. citizens or U.S. nationals by birth, examples of such documentation would include a passport book or passport card; a certified copy of a birth certificate from one of the 50 States, the District of Columbia, American Samoa, Swain’s Island, Puerto Rico, U.S. Virgin Islands, Northern Mariana Islands, or Guam; an American Indian Tribal Card with photo indicating U.S. citizenship (Form I–872); an unexpired Native American Tribal Card approved by the Secretary to denote identity and U.S. citizenship; a U.S. Coast Guard Merchant Mariner Credential or Document; a U.S. Enhanced Driver’s license; and a Trusted Traveler Program Card (FAST, NEXUS, SENTRI, or Global Entry). For individuals claiming U.S. citizenship who were born abroad, in addition to many of the documents listed above, examples would include a Certificate of Citizenship and Consular Report of Birth Abroad, or a naturalization certificate. For individuals not claiming U.S. citizenship, examples would include visas and proof of U.S. lawful permanent residence status. During the enrollment process, TSA proposes to scan the documentation presented by the individual into the electronic enrollment record.

The information requested in proposed paragraphs (c)(1)–(5), including social security number, passport information, Department of State Consular Report of Birth Abroad, information about previous STA applications, and information about the individual’s Federal security clearance, is voluntary. Failure to provide this information would not prevent TSA from processing the application. However, providing the information requested in paragraph (c), if available, may speed up the process for the individual.

In addition to the biographic information and documentation specified in proposed paragraphs (b) and (c), TSA proposes to require every individual to sign certain statements as part of the application process. Paragraph (d) would require each individual to sign a statement attesting that the information provided in the application is true, complete, and correct to the best of the individual’s knowledge, and that the individual acknowledges that knowing and willful false statements or material omissions may result in criminal prosecution and other consequences.

Paragraph (e) would require all individuals to certify in writing that they understand that if TSA determines

an individual does not meet the STA standards, TSA may notify the employer, and, in the case of an imminent threat to an owner/operator, TSA may provide the employer limited information necessary to reduce risk of injury or damage.

Paragraph (f) would require all individuals to certify that there is a continuing obligation to report certain events to TSA. Not every event listed in this proposed section will necessarily apply to every individual. For example, one of the events that must be reported is a conviction, or finding of not guilty by reason of insanity, for a disqualifying criminal offense. This event is relevant only for security coordinator applicants applying for an STA that includes a CHRC.

3. *Proposed § 1530.103.* This section would require individuals whose STA includes a CHRC to provide fingerprints in a form and manner prescribed by TSA. TSA must collect and transmit fingerprints electronically according to procedures and standards the FBI requires of all agencies that submit fingerprints for a CHRC.

In addition to using the fingerprints to obtain criminal history information from the FBI, TSA will use the fingerprints to conduct biometric vetting through IDENT. IDENT is the DHS repository for all biometrics collected by agencies within DHS, and some external agencies, such as the Department of Defense. Using IDENT biometric vetting capabilities enhances TSA’s STA process. TSA would receive the results of these searches and use the information as part of the STA eligibility decision. We invite comment from all interested parties on the use of IDENT for TSA vetting purposes.

4. *Proposed § 1530.105.* This section proposes that each individual applying for an STA must pay the fee associated with the STA at the time of application. TSA is statutorily required to fund all vetting and credentialing services through user fees,<sup>45</sup> and consequently, TSA will not process STA applications until the fees are paid. TSA begins incurring costs as soon as it begins processing the application. Also, TSA cannot refund fees, even if the individual decides at a later date to withdraw the application, because TSA has already expended resources that must be covered through fees.

5. *Proposed § 1530.107.* Each individual who applies for an STA has continuing responsibilities for the life of the STA. Paragraph (a) would establish the requirement to report certain events to TSA within 24 hours of occurrence.

<sup>45</sup> See 6 U.S.C. 469.



Each of the events that must be reported relate directly to whether the individual is still eligible to serve as a security-sensitive employee or security coordinator.

Paragraph (a)(1) involves individuals whose STA includes a CHRC (in this rulemaking, security coordinators), both those who have applied for an STA, and those who have already successfully completed an STA that included a CHRC. These individuals would be required to report an occurrence, indictment, conviction, or finding of not guilty by reason of insanity of disqualifying crimes within 24 hours. The list of disqualifying crimes is in proposed § 1530.503, and is explained below. The 24-hour reporting requirement would also apply to individuals who are adjudicated as lacking mental capacity, or committed to a mental health facility.

Paragraph (a)(2) would apply to all individuals whose STA includes an immigration check, which are security coordinators and security-sensitive employees in this rulemaking. These individuals would be required to report any change in immigration category that results in no longer meeting the immigration standards.

Paragraph (b) would require all individuals who have successfully completed an STA to notify TSA if certain contact information changes. Specifically, each individual would be required to notify TSA of any legal name changes (proposed § 1530.101(b)(1)), address changes (proposed § 1530.101(b)(2)), or daytime telephone number changes (proposed § 1530.101(b)(9)). TSA needs reliable contact information in order to administer the STA after the DOE is issued. For example, TSA may have to contact an individual to provide a notice of ineligibility and redress procedures, if TSA discovers potentially adverse information about an individual. This notification requirement would continue until the DOE expires.

6. *Proposed § 1530.109.* This section proposes the procedures TSA would use to verify the individual's identity. Paragraph (a) would provide that TSA must be able to verify each individual's identity at the time of enrollment. This element is critical to attain a high a degree of certainty that the individual is who he or she claims to be.

Paragraph (b) would require the individual to present two forms of identification, at least one of which must be a government-issued photo identification. Government-issued photo identification is relatively reliable and is not burdensome or costly for

individuals to obtain. TSA uses fraud detection software as part of the enrollment process at some locations and continues to explore expanding and improving the use of technology to aid the identification verification process. As of the writing of this NPRM, some biometric technologies other than fingerprints, including facial recognition and iris scans, are being used by governmental entities to produce identity documents. However, this practice is not yet widespread or reliable enough to ensure identity verification in this rulemaking. As a result, TSA believes that requiring government-issued photo identification is the most practical balance between trustworthiness and burden to ensure accurate identify verification at this time. To the extent new technologies become more widespread and trustworthy, TSA will consider alternative means of providing identity verification. Paragraph (c) would require examination of the documents presented by the individual to determine whether they appear to be genuine, unexpired, and relate to the individual presenting them.

#### *D. Subpart C Is Reserved*

#### *E. Proposed Subpart D—Fees*

1. *Introduction.* The fee structure proposed in this rulemaking is designed to cover TSA's anticipated costs of conducting and administering STA services over the 5-year duration of each STA. TSA calculated the proposed fees based on estimates for the cost of each respective service and the expected populations that will receive benefit from the services.

2. *Costs.* TSA incurs costs during all phases of the vetting process. During the initial phase of vetting, resources are required to establish and operate physical locations for individuals to complete certain parts of the application process. As noted previously, TSA uses contractors to find, lease, and operate these enrollment centers. The resources needed to establish, equip, and staff such locations throughout the country have been grouped together and labeled "Processing."

Similarly, some interactions with TSA to perform a vetting function may be accomplished entirely by using an online platform, and resources are required to establish and operate such a platform for individuals to complete certain aspects of the vetting process. Additionally, TSA assumes that some online interactions would result in customer service expenses that would also be covered by this fee. The resources to design, establish, maintain,

and staff such a platform and offer customer service are grouped together and labeled "Reduced Processing."

Once individual information is captured and records are established, TSA incurs costs to administer the information through the various databases that comprise the STA. As explained in the discussion of proposed § 1530.5, TSA performs different levels of STAs. The three levels of STAs vary depending on the specific checks included in the STA, such as terrorism/other analyses, immigration, or criminal history. Thus, the cost to conduct the STA depends on the resources TSA needs to complete the STA services. TSA proposes to segment the costs according to how individuals interact with TSA and the consumption of services to complete the STA. Thus, the Processing Fee or Reduced Processing Fee would be imposed when an individual uses processing services, the criminal check fee would be imposed for each individual required to complete a CHRC, and so on. Each individual would pay fees only for the services TSA provides for his or her STA.

To complete the terrorism/other analyses check, TSA incurs costs to construct, maintain, and operate the information technology (IT) platform that enables comparing the applicant's biographic information to multiple terrorism and law enforcement databases, and other information sources. TSA incurs additional expenses to evaluate the information received from these sources, make decisions as to whether an individual poses or may pose a threat, engage in redress with the individual when necessary, and communicate with other entities, such as the individual's employer or governmental agencies. TSA must also recover the cost of staffing this service through fees. TSA has labeled this grouping of costs "terrorism/other analyses" fees.

TSA incurs costs similar to those discussed above for completion of immigration checks and CHRCs. Those fees are segmented respectively and labeled accordingly.

With respect to the CHRC fee, TSA must collect the fees the FBI charges to process the initial criminal check and the Rap Back recurrent criminal history service, in addition to TSA's costs to adjudicate the results of the initial criminal check and any subsequent Rap Back notifications, and provide redress.

TSA's cost-estimating methodology includes both an analysis of actual costs TSA has incurred for existing STAs and an analysis of future investments that are necessary to develop, operate, and maintain a robust STA platform. In



some instances, TSA has been able to develop a unit cost for a particular STA-related service. In other instances, TSA developed a resource investment estimate that is equitably shared by all individuals who benefit from the

investment. TSA has consulted with programmatic and industry experts, and acquired data from internal sources, other governmental agencies, and publicly available sources. Table 5 below is a summary of costs that TSA

estimates it will incur over the first 5-year period of this effort.<sup>46</sup> Additional details regarding the cost estimates used to determine the service fees can be found in the Fee Report in the rulemaking docket.

TABLE 5—ESTIMATED TSA SERVICE COSTS OVER FIRST FIVE-YEAR PERIOD  
[\$ Thousands]

Service	TSA estimated costs					Total f = Σa,b,c,d,e
	Year 1	Year 2	Year 3	Year 4	Year 5	
	a	b	c	d	e	
Processing .....	\$16,700	\$1,422	\$1,423	\$1,423	\$1,424	\$22,393
Terrorism/Other Analyses .....	2,429	207	207	207	207	3,257
Immigration .....	911	78	78	78	78	1,221
Criminal History .....	43	4	4	4	4	59
<b>Total .....</b>	<b>20,084</b>	<b>1,710</b>	<b>1,711</b>	<b>1,712</b>	<b>1,713</b>	<b>26,930</b>

Note: Calculations may not be exact in the table due to rounding.

3. *Populations.* TSA has consulted with programmatic and industry experts, and acquired data from internal sources, other governmental agencies, and public sources to analyze the number of transportation workers who

would be covered under this rulemaking. Table 6 below is a summary of populations that TSA estimates it would impact over the first 5-year period of this effort. Additional details regarding the population estimates used

to determine fees can be found in the Fee Report and the Preliminary Regulatory Impact Analysis in the rulemaking docket.

TABLE 6—NUMBER OF EMPLOYEES AFFECTED BY THE PROPOSED RULE OVER FIRST FIVE-YEAR PERIOD BY INDUSTRY  
[Thousands]

Industry	Number of employees affected by year					Total f = Σa,b,c,d,e
	Year 1	Year 2	Year 3	Year 4	Year 5	
	a	b	c	d	e	
<i>Freight Rail Total .....</i>	123.13	4.93	4.88	4.83	4.77	142.55
Security-Sensitive Employees .....	122.24	4.89	4.84	4.78	4.73	141.47
Security Coordinators .....	0.90	0.04	0.04	0.04	0.04	1.07
<i>PTPR Total .....</i>	179.57	20.82	20.89	20.95	21.01	263.24
Security-Sensitive Employees .....	179.34	20.79	20.86	20.92	20.98	262.88
Security Coordinators .....	0.23	0.03	0.03	0.03	0.03	0.36
<i>OTRB Total .....</i>	0.44	0.06	0.06	0.06	0.06	0.69
<b>Total .....</b>	<b>303.14</b>	<b>25.82</b>	<b>25.83</b>	<b>25.84</b>	<b>25.85</b>	<b>406.47</b>

Calculations may not be exact in the table due to rounding.

4. *Fees.* To comply with 6 U.S.C. 469, which requires TSA to fund vetting and credentialing programs through user fees, TSA proposes to establish user fees for individuals who receive STA services under this proposed rule. TSA determined the proposed fees in accordance with Office of Management and Budget (OMB) Circular No. A–25.

The proposed fees are set to recover a share of the service costs from all individuals that use a particular service, and a description of the processes that went into estimating the proposed fees is available in the Fee Report in the rulemaking docket. TSA may increase or decrease the fees described in this regulation for changes in cost due to, for

instance, new efficiencies, inflation, changes in contractual services, changes in populations, or other factors following publication of the final rule. TSA will publish a notice in the **Federal Register** notifying the public of any fee changes.

<sup>46</sup>The costs in this table reflect the total population of STAs in this proposed rule using services for processing and checks equivalent to Levels 2 and 3, for security sensitive employees and

security coordinators, respectively. TSA does not have data on the newly regulated industries to estimate the number of covered individuals who may have a comparable STA and could pay the

reduced processing fee, but acknowledges that costs could be less those reported in this table.

TABLE 7—FEES BY TYPE OF SERVICE

Service fee	Low	Primary	High
Processing Fee .....	\$44.00	\$55.00	\$66.00
Reduced Processing Fee .....	24.00	30.00	36.00
Terrorism/Other Analyses Fee .....	6.00	8.00	10.00
Immigration Fee .....	2.00	3.00	4.00
CHRC/Initial Fee .....	17.00	21.00	25.00
CHRC/Renewal Fee .....	8.00	10.00	12.00

The following table presents combinations of services that coincide with STA levels in the proposed rule.

TABLE 8—FEES BY STA LEVEL WITH IN-PERSON ENROLLMENT

STA level	Low	Primary	High
Level 1 (Processing, Terrorism/Other Analyses) .....	\$50.00	\$63.00	\$76.00
Level 2 (Processing, Terrorism/Other Analyses, Immigration) .....	52.00	66.00	80.00
Level 3 (Processing, Terrorism/Other Analyses, Immigration, Initial CHRC) .....	69.00	87.00	105.00

TABLE 9—FEES BY STA LEVEL WITH ONLINE RENEWAL

STA level	Low	Primary	High
Level 1 (Reduced Processing, Terrorism/Other Analyses) .....	\$30.00	\$38.00	\$46.00
Level 2 (Reduced Processing, Terrorism/Other Analyses, Immigration) .....	32.00	41.00	50.00
Level 3 (Reduced Processing, Terrorism/Other Analyses, Immigration, CHRC/Renewal) .....	40.00	51.00	62.00

TABLE 10—FEES BY STA LEVEL WITH IN-PERSON RENEWAL

STA level	Low	Primary	High
Level 1 (Processing, Terrorism/Other Analyses) .....	\$50.00	\$63.00	\$76.00
Level 2 (Processing, Terrorism/Other Analyses, Immigration) .....	52.00	66.00	80.00
Level 3 (Reduced Processing, Terrorism/Other Analyses, Immigration, CHRC/Renewal) .....	60.00	76.00	92.00

5. *Proposed § 1530.301.* Paragraph (a) would explain that TSA calculates the fees using widely accepted accounting principles and practices, in accordance with the provisions of 31 U.S.C. 9701, which direct agencies to make their services self-sustaining to the extent possible, and in accordance with other applicable laws. Generally, TSA totals all costs associated with the vetting program over the life of the STAs (5 years), divides the total by the number of individuals vetted, and sets aside a small portion of the funds collected to cover emergencies, such as necessary system changes, natural disasters such as pandemics, or other unforeseen events. At least every 2 years, TSA would review the costs of conducting the STAs and the associated fees collected, using the same method of analysis, to ensure that fees recover, but do not exceed, the full cost of services. TSA prepared a Fee Report for this proposed rule, which discusses the methodology and factors TSA used to arrive at the proposed fees, and placed the Report in the rulemaking docket.

TSA would revise the fees, if necessary, following this evaluation, by publishing a notice in the **Federal Register**.

Paragraph (b) explains the procedures that TSA would use to make inflation adjustments to the fees, as necessary.

6. *Proposed § 1530.303.* This proposed section describes each STA service for which TSA charges a fee, service-by-service, computed as explained above. TSA provides an estimate of the fees based on information concerning population numbers and the costs of the services. TSA will be able to finalize these fees after receiving information concerning the number of employees subject to proposed vetting requirements from affected entities as part of this rulemaking process, and an accounting of internal costs at the time the proposed rule would become final. TSA will publish the final fee amounts through a notice in the **Federal Register**.

Paragraph (b) proposes the fees that would cover TSA’s processing costs. Paragraph (b)(1) proposes that the Processing Fee would cover the costs

associated with an applicant’s interaction with TSA, such as enrollment center operations, collecting applicant information, verifying applicant identity, processing the vetting information, and program management. TSA estimates the processing fee to be \$43 to \$65, and proposes to codify that range in the rule. Paragraph (b)(2) proposes the Reduced Processing Fee that would apply when an individual’s interaction with TSA can be completed entirely online and does not involve services at an enrollment center. TSA estimates the Reduced Processing Fee to be \$24 to \$36.

Paragraph (c) describes the fee to cover TSA’s costs of conducting the terrorism/other analyses check, the substance of which is explained in the discussion of proposed § 1530.507. This service includes the costs of querying the relevant data sources, adjudicating the information TSA receives from the queries, and processing appeal requests. TSA estimates the Terrorism/other analyses Check Fee to be \$6.00 to

\$10.00, and proposes to codify that range in the rulemaking.

Paragraph (d) describes the fee to cover TSA’s costs of conducting the Immigration check in the United States. This service includes the costs of querying the relevant data sources, adjudicating the information TSA receives from the queries, and processing appeal requests. TSA estimates the Immigration Check Fee to be \$2.00 to \$4.00, and proposes to codify that range in the rulemaking.

Paragraph (e) proposes the fee to cover the costs of conducting the CHRC. This service includes the cost of collecting fingerprints electronically; transmitting them to the FBI; adjudicating any rap sheets associated with the fingerprints to determine whether the individual has a disqualifying conviction, arrest, or indictment in accordance with section 1530.503; adjudicating new criminal information that the FBI’s Rap Back service provides; and conducting an appeal or waiver, where applicable. TSA estimates the CHRC fee for the initial CHRC, which occurs in-person at

a TSA enrollment center to be \$17.00 to \$25.00, which is proposed in paragraph (e)(1) of this section. Given the benefits of the Rap Back system, applicants would not be required to provide new fingerprints for a new CHRC when renewing the STA. The individual’s fingerprints would be enrolled in Rap Back and thus, any criminal history associated with those prints would be transmitted to TSA. Therefore, the renewal of an STA would not require in-person enrollment at an enrollment center to provide fingerprints, and consequently, the fees for a renewal CHRC are lower than for the initial CHRC. In paragraph (e)(2), TSA proposes the renewal CHRC fee of \$8.00 to \$12.00. TSA proposes to codify these ranges in the rulemaking.

TSA will continue to work to minimize all costs and would finalize fee amounts in conjunction with publication of the final rule. Following publication of the final rule, TSA may, by notice in the **Federal Register**, increase or decrease the fees to reflect changes in costs. The total TSA fee for any given STA would be the sum of the

fees for each service that comprises that level of STA. These total fees, broken out by level of STA, are explained in proposed § 1530.305 discussed below.

7. *Proposed § 1530.305.* This section would set out the fees TSA must charge for each STA proposed in this rulemaking, organized by level of STA, with paragraphs (a)–(c) corresponding to STA Levels 1–3, respectively. Each paragraph lists the fees associated with the relevant STA.

8. *Proposed § 1530.307.* This section on fee comparability explains how TSA computes fees when TSA is able to rely on an earlier STA to complete a new STA. This concept of comparability is explained more completely in the discussion of proposed § 1530.509, below. If TSA can rely on an earlier check, rather than conducting a new check, paragraph (b) provides that we would only charge the fee for the services that we must provide for the current STA. This results in a lower fee for the applicant and lower costs for TSA. Table 10 below provides examples of how using a comparable STA affects fees.

TABLE 11—HOW A COMPARABLE STA AFFECTS FEES

If I have a . . .	And I need a . . .	I will not have to repeat . . .	I may . . .	I must . . .
Twic (Level 3) .....	Level 2 for Security-Sensitive position.	Terrorism/other analyses or Immigration.	Enroll online .....	Pay Reduced Processing Fee.
If I have a . . .	And I need a . . .	I will not have to repeat . . .	I must . . .	I must . . .
Level 2 (security-sensitive position).	Level 3 for Security Coordinator position.	Terrorism/other analyses or Immigration.	Visit Enrollment Center to provide fingerprints and complete CHRC.	Pay Processing and CHRC Fees.

9. *Proposed § 1530.309.* This section proposes that fees must be paid through a method approved by TSA. Currently, TSA accepts STA fees through a third-party vendor or through the [www.pay.gov](http://www.pay.gov) website during processing, and we may continue to use that process. TSA is exploring other methods of payment that may be equally cost-effective and resistant to fraud. Paragraph (b) would make it clear that TSA cannot act on an STA until the required fees have been recognized by TSA. Paragraph (c) provides that TSA would not issue refunds. TSA will not begin processing an STA until the individual pays the fee. Once TSA begins the STA, TSA incurs costs that must be recovered through fees.

*F. Proposed Subpart E—Adjudication Procedures*

1. *Introduction.* Once TSA collects biographic information, biometrics (where needed for a CHRC), and fees from an individual, TSA transmits the information to the various databases associated with the checks. TSA then evaluates the information that is returned from the databases to determine if it contains data that is disqualifying according to the standards that apply. TSA then makes an initial determination on eligibility and notifies the individual. This process is called adjudication.

2. *Proposed § 1530.401.* This proposed section sets out procedures for conducting CHRCs, which in this rulemaking apply to security coordinators. Paragraphs (a) and (b) explain that TSA would transmit the fingerprints collected during enrollment

to the FBI, and receive and adjudicate the results of the check.

3. *Proposed § 1530.403.* This section explains the procedures for conducting the terrorism/other analyses check, which in this rulemaking would apply to security coordinators and security-sensitive employees. TSA would check certain domestic and international databases that include information on terrorists, individuals with ties to terrorism or international criminal networks, fugitives from justice, and databases that assist in confirming an individual’s identity. In paragraph (a) TSA proposes the procedures that TSA would use to conduct a terrorism/other analyses check.

Paragraph (b) provides notice that TSA may send the individual’s information to the appropriate law enforcement or immigration agency if the terrorism/other analyses check

reveals that the individual has an outstanding want or warrant, or is subject to a removal order. Under these circumstances, TSA would share the individual's information with the agency that posted the want, warrant, or removal order to ensure that the issue can be resolved lawfully.

4. *Proposed § 1530.405.* This section proposes the procedure TSA would use to conduct the immigration check. This check would verify that the individual is in one of the following categories: a U.S. citizen, U.S. National, lawful permanent resident, refugee, asylee, lawful nonimmigrant, granted parole, or is otherwise authorized to work in the U.S. TSA proposes to use relevant Federal databases, primarily the SAVE program administered by USCIS to verify that an individual's alien registration number, I-94 Arrival-Departure Form number, or other pertinent document number is valid and associated with the individual.

5. *Sections 1530.407, 1530.409, and 1530.411.* These sections would be reserved.

6. *Proposed § 1530.413.* This section applies to all individuals who must undergo an STA and proposes that TSA issue a DOE if TSA determines that an individual meets the STA standards. TSA would notify the individual of the DOE and would make that information available to the owner/operator. TSA may notify the individual via letter in the U.S. postal service, an email, or another method yet to be determined. TSA intends to create a web portal that owner/operators would access to determine whether a particular worker has passed the appropriate STA for the position in which he or she works. TSA invites comment on this proposal from all interested parties, as to preferences for notifications. In current vetting programs, TSA asks individuals how they wish to be notified of the final STA determination, and then uses that method, if possible. Workers who are relatively stationary often prefer a letter, and those who are mobile may prefer email or other electronic notification.

7. *Proposed § 1530.415.* This section describes the procedures that would apply when an individual may not meet, or may no longer meet, the STA standards set out in proposed § 1530.501. When this occurs, TSA would notify the individual or holder of the STA of the factors that may be disqualifying by issuing a Preliminary Determination of Ineligibility (PDI) to the individual.<sup>47</sup>

<sup>47</sup> In existing vetting regulations, TSA uses the term "Initial Determination of Threat Assessment." See 49 CFR 1572.15(d). However, TSA believes

As set forth in paragraph (b), TSA would also state the basis for the determination in the PDI.

Under paragraphs (c)(1) and (2), the PDI would include information about how the individual may appeal or, if applicable, request a waiver of ineligibility, including the time deadlines associated with these requests. TSA proposes that the individual must appeal the PDI, request a waiver of the PDI, or request an extension of time, generally within 60 days of service of the PDI. TSA may consider requests for extensions of time beyond 60 days for good cause. If the individual does not appeal, the PDI would automatically convert to a FDI. TSA uses these timelines in other vetting programs, and believes they provide sufficient time for an individual to seek redress.

Paragraph (d), "Determination of Arrest Status," would apply when the results of the CHRC show an arrest for a potentially disqualifying crime, but no indication of whether the arrest resulted in a conviction, dismissal, or acquittal. In such cases, TSA would notify the individual of the arrest without disposition, and provide instructions on how to clear the disposition under paragraph (d)(2). Under this paragraph, the burden would be on the individual to provide written proof to TSA that the arrest did not result in a conviction for a disqualifying criminal offense. Such written proof may include a record of conviction for a misdemeanor that is not disqualifying, or a dismissal of the charges from the prosecution. Individuals who do not provide the evidence that the arrest did not result in a conviction within 60 days of service of the PDI, or request an extension of time, would be disqualified.

In paragraph (e), TSA proposes to permit an individual to take certain corrective action if the CHRC discloses an arrest for a disqualifying crime. Specifically, the individual may contact the local jurisdiction responsible for the criminal information and the FBI to complete or correct the information. Paragraph (d) would also establish a 60-day timeframe in which TSA must receive a certified true copy of the revised record.

8. *Proposed § 1530.417.* This section would apply if TSA determines that an individual who initially passed the STA may no longer meet the STA standards,

"preliminary" better describes this step. TSA also proposes to use the word "ineligibility" rather than the term "threat assessment" to more clearly identify the type of determination TSA is making. The STA is used to determine whether an employee is eligible or ineligible for certain roles or functions and thus, we propose to use that terminology.

may pose an imminent threat, and immediate revocation of the associated credential, access, or authorization is warranted. In these cases, TSA would issue a PDIIR. This scenario would arise where new information creates significant security concerns about the individual's continued eligibility and suggests the access should be revoked until a final determination is possible. If TSA determines that the information is not disqualifying, TSA would reinstate the DOE.

Under paragraph (a), TSA proposes to issue the PDIIR to the individual and, as applicable, the owner/operator, facility, or employer. Paragraph (b) would provide that a PDIIR would otherwise be processed in accordance with proposed § 1530.415, which addresses PDIs.

Paragraph (c) would apply when TSA does not issue a FDI (see proposed § 1530.419 below) after having issued a PDIIR. In such cases, the individual's access, privileges, and/or credentials would be reinstated, at no cost to the individual. TSA would also notify the individual, and if applicable, the employer, of the reinstatement.

9. *Proposed § 1530.419.* In paragraph (a) TSA proposes that if an individual does not appeal or a request a waiver of a PDI or PDIIR, the preliminary finding automatically converts to an FDI and the individual's eligibility is revoked.

Paragraph (b) would apply when an individual appeals or requests a waiver of a PDI or PDIIR, and TSA denies the appeal or waiver request. In these cases, TSA would serve the FDI on the individual, and the employer where applicable.

### G. *Proposed Subpart F—Standards*

1. *Introduction.* Subpart F proposes the standards that TSA would use to make decisions about eligibility based on the information obtained from the checks that comprise an STA.

2. *Proposed § 1530.501.* This section would set out the standards that an individual must meet to successfully complete an STA and receive a DOE. Each of the standards in paragraph (a)(1)-(4) is related to the checks that may be included in an STA. Not every standard will apply in every adjudication because not every check is included in every STA. For example, in adjudicating the results of a Level 2 STA for a security-sensitive employee, which does not include a CHRC, the standard in paragraph (a)(4), which applies to the results of CHRCs, would not apply.

Under paragraph (a)(1), TSA would not issue a DOE unless the individual's identity could be verified. See the discussion of proposed § 1530.109

regarding identity verification procedures.

Paragraph (a)(2) pertains to the terrorism/other analyses check. TSA would review the information returned from the data sources queried as part of this check, which are described in proposed § 1530.507, to determine whether the individual is eligible. If TSA determines that information indicates the individual poses or may pose a threat to transportation or national security, or of terrorism, TSA would deem the individual ineligible to serve in a security-sensitive position.

Paragraph (a)(3) would apply to individuals whose STAs include a check for immigration in the United States. If the individual is not in a permissible immigration category, TSA would not issue a DOE. The substantive requirements of the immigration check are explained in the discussion of proposed § 1530.505, below.

Paragraph (a)(4) would apply to the individuals whose STA includes a CHRC (Level 3 STA). Under this paragraph, an individual would be disqualified if he or she has a disqualifying criminal offense or lacks mental capacity, as described in proposed § 1530.503.

Based on TSA's vetting experience, the issue of mental incapacity comes to light in the course of the criminal check, such as when an individual is found not guilty by reason of insanity. TSA does not have access to health records of STA applicants, and therefore, the primary way TSA becomes aware of an individual's mental capacity is through the criminal check. For this reason, we propose to place the mental capacity standard in the same paragraph as the criminal standards.

Paragraph (b) explains that individuals may reapply for an STA if the condition that originally made them ineligible no longer exists.

3. *Proposed § 1530.503.* Paragraph (a) proposes the criminal look-back periods, crimes, and other factors that would be disqualifying for an individual required to complete a Level 3 STA. An individual who has a conviction, or finding of not guilty by reason of insanity, for one or more of these crimes would not be eligible if a Level 3 STA is required. TSA proposes to use the disqualifying crimes and lookback period that currently apply to the HME and TWIC programs<sup>48</sup> for the surface employees subject to this NPRM for two reasons. First, this population is part of surface transportation, like the HME drivers, and the security threats are similar for all surface modes, and differ

from aviation. Second, the list of crimes and lookback period that apply to HME and TWIC workers constitute Congress' most recent expression as to the appropriate disqualifying criteria for transportation programs. Congress adopted these criminal standards in 2007,<sup>49</sup> whereas the standards for aviation were adopted prior to 9/11 when the security climate was quite different.

Paragraph (a)(1) lists serious crimes that would be deemed permanently disqualifying. Paragraph (a)(2) lists proposed look-back periods that would apply to interim disqualifying offenses. The proposed interim crimes would be disqualifying if the conviction, or finding of not guilty by reason of insanity, is within 7 years of the date of the application; or if the individual was incarcerated for that crime and released from incarceration within 5 years of the date of the application.

Paragraph (a)(3) lists the interim disqualifying criminal offenses we propose to use for security coordinators in this rulemaking. This list of crimes is identical to the list of interim offenses codified in section 1572.103 for the TWIC and HME programs, except that it also lists manslaughter as an interim disqualifying offense. TSA has treated manslaughter as a disqualifying offense in the TWIC and HME programs as a lesser included offense of murder, but it has not been listed in section 1572.103.

Paragraph (b) would be reserved.

Paragraph (c) would be based on 49 CFR 1572.103(c), which provides that an individual who is under want, warrant, or indictment in any civilian or military jurisdiction for a disqualifying crime, is disqualified until the want or warrant is released, or the indictment is dismissed. TSA proposes to revise this provision by adding the issuance of a criminal complaint to the grounds for disqualification pending release or dismissal. The sole purpose of the proposed revision is to account for cases in which the jurisdiction begins a criminal proceeding with a complaint rather than an indictment. Under the Federal Rules of Criminal Procedure, a complaint is a written statement of the essential facts constituting the offense that is charged, and is under oath before a magistrate judge or, if none is reasonably available, before a state or local judicial officer.<sup>50</sup> In other vetting programs, TSA has found cases in which the jurisdiction initiates a

criminal action through a complaint, rather than a want or indictment, and proposes to make it clear that this would also be disqualifying under this proposed rule.

Paragraph (d) of this section proposes that an individual who has been declared mentally incompetent or involuntarily committed to mental health facility would be disqualified. This is the same standard that currently applies to TWIC and HME applicants, but TSA proposes to move it into the criminal standards in this NPRM, because TSA becomes aware of mental incapacity through the criminal check.

4. *Proposed § 1530.505.* As explained above, applicants for a Level 2 or Level 3 STA must be a U.S. citizen, U.S. national, or non-citizen who is a lawful permanent resident, a refugee, an asylee, a lawful nonimmigrant, is paroled into the U.S., or is otherwise authorized to work in the U.S. Note that individuals with Deferred Action for Childhood Arrivals are authorized to work in the U.S. and thus are eligible to apply for a security sensitive or security coordinator position under this rulemaking. The standard proposed in this section would require applicants to be in one of these listed, permissible categories at the time of application. TSA is not proposing that individuals must belong to a particular category of noncitizen to successfully complete the STA, because TSA does not assess a particular level of security risk associated with one immigration category as compared to another.

Paragraph (b) explains that TSA determines whether an individual is in a listed, permissible category by checking relevant Federal databases, primarily the SAVE program administered by the USCIS. Also, TSA may verify an applicant's social security number, alien registration number, or I-94 number as part of the vetting process, to identify any instance of identity fraud.

5. *Proposed § 1530.507.* In this section, TSA proposes the standards for the terrorism check and other analyses. TSA would conduct this portion of the STA recurrently, which means each time a watchlist or database receives new or updated information, TSA compares the individual's name to the revised list. TSA would continue to recurrently vet the individual for the life of the STA, which TSA proposes to be 5 years in this NPRM. The recurrent vetting process allows TSA to receive notification if a vetted individual is subsequently added to a terrorist watchlist. If TSA determines, based on the information generated during this vetting, that an individual poses or may

<sup>49</sup> See Section 1309 of the Implementing Recommendations of the 9/11 Commission Act of 2007, Public Law 110-53 (121 Stat. 397-400; August 3, 2007).

<sup>50</sup> See Rule 3, Federal Rules of Criminal Procedure, as amended December 1, 2019.

<sup>48</sup> See 49 CFR 1572.103.

pose a threat to transportation or national security, or of terrorism, TSA would deem the individual to be ineligible to work as a security coordinator or security-sensitive employee.

TSA searches several databases in this portion of the STA, including the consolidated terrorist database (TSDB), the U.S. Marshals Service federal wants and warrants, Interpol, the Department of State lost and stolen passport file, and the U.S. Treasury Office of Foreign Asset Control database of individuals who are sanctioned due to terrorism or national security issues.<sup>51</sup> If TSA matches an applicant's identity to an identity included in one of these lists, TSA conducts an investigation to determine whether, under the totality of the circumstances, an applicant is ineligible.

Paragraph (b) proposes that TSA may determine an individual is ineligible if the check reveals extensive foreign or domestic criminal convictions, a conviction for a serious crime not otherwise covered by the regulation, or a period of foreign or domestic imprisonment that exceeds 365 consecutive days. TSA sometimes receives foreign criminal history records when conducting this check, such as through Interpol, which are not identified in the CHRC we conduct through the FBI's database. This paragraph would expressly provide TSA the discretion to disqualify an individual based on an overall view of the individual's record, even where some of the criminal history does not involve disqualifying offenses, but is indicative of an individual who may pose or poses a threat to national or transportation security, or of terrorism.

6. *Proposed § 1530.509.* This section proposes to permit the use of existing, valid STA results for satisfying requirements for a new STA. TSA's goal is to be able to rely, in whole or in part, on an STA that was already conducted on an individual when that individual subsequently applies for another STA. Relying on comparable STAs conserves time and resources for TSA and individuals by eliminating redundant checks.

Paragraph (a) proposes that TSA may deem an earlier check comparable to a currently needed check based on certain factors listed in proposed paragraph (d), below, and if three conditions are met. First, as proposed in paragraph (a)(1), the original check cannot be expired.

Second, as proposed in paragraph (a)(2), the original check must be part of a DOE that is not expired, revoked, or suspended. Third, as proposed in paragraph (a)(3), the earlier check must be adjudicated under standards that are comparable to the standards for the new STA.

For example, individuals applying for a security coordinator STA under this NPRM who hold a current TWIC would be able to use the CHRC conducted for TWIC as a comparable check because both the TWIC CHRC and the security coordinator CHRC are adjudicated against the same look-back period and list of disqualifying crimes.

Paragraph (b) proposes that TSA may accept a valid, unexpired STA, background check, or investigation conducted by TSA or another Federal governmental agency to satisfy the STA requirement. Unlike proposed paragraph (a), which addresses the comparability of a given check (terrorism/other analyses, immigration, or CHRC) from one STA to another, proposed paragraph (b) addresses whether an entire STA, background check, or investigation may satisfy a subsequent STA requirement without the need for further checks. For example, as explained below, TSA may determine that a Level 3 STA is comparable to a Level 2 STA (because the former includes all of checks included in the latter). Thus, TSA may rely on the fact that an individual has already successfully completed a Level 3 STA to satisfy a subsequent requirement for a Level 2 STA under a different regulatory program for the same individual. Proposed paragraph (b) would refer to the factors in proposed paragraph (d) as the basis for the determination.

Paragraph (c) would impose an important constraint on comparability based on timing. If TSA relies on a comparable check from an earlier STA, the duration of the new STA will be backdated to the date of the earliest check in the STA. This would ensure that no part of the STA is older than 5 years.

Paragraph (d) sets out the criteria that TSA would use to decide whether STAs, background checks, or other investigations are comparable in whole or in part. Paragraph (d)(5) would allow TSA to consider other factors it deems appropriate when making a comparability determination. For instance, an agency may ask TSA to consider the use of different databases that TSA does not use as comparable sources of information. TSA needs this latitude because of the widely variable factual and policy circumstances that

can surround how a given governmental agency may conduct the background check or investigation on which TSA may rely.

Paragraph (e) is reserved.

Paragraph (f) proposes the responsibilities of an individual who asserts completion of a comparable STA to satisfy a new STA requirement. Paragraph (f)(3) would require an individual asserting completion of a comparable STA to complete enrollment and pay the associated STA fees. A new enrollment is necessary because TSA needs complete, up-to-date enrollment information to accurately identify the individual and notify him or her of the outcome of the STA.

Paragraphs (g)–(i) would list certain comparability determinations that TSA would set forth in the regulatory text. Each more thorough STA is comparable to the less thorough STAs. For instance, a Level 2 STA is comparable to a Level 1 STA, and a Level 3 STA is comparable to both a Level 2 and a Level 1 STA.

TSA has already determined that an STA for the FAST program, administered by CBP, is comparable to the TWIC and HME STA.<sup>52</sup> Since the requirements for the Level 3 STA proposed in this rulemaking are comparable to the TWIC and HME programs, the STA for a FAST card is comparable in whole to a Level 3 STA.

In addition to the FAST program, CBP administers the NEXUS,<sup>53</sup> SENTRI,<sup>54</sup> and Global Entry<sup>55</sup> programs. These programs include thorough criminal history, terrorism, and immigration checks conducted by CBP, and in the case of Global Entry, also include an interview conducted by a CBP law enforcement officer. CBP's criminal checks view all of the disqualifying offenses we propose in this NPRM as disqualifying in their programs. Similarly, the CBP terrorism and immigration checks include comparable data sources and standards. For these reasons, TSA has determined that the STAs for these programs are comparable to the proposed Level 3 STA. Finally, the TSA PreCheck® STA would be comparable to the Level 3 STA in this proposed rule. For TSA PreCheck®, TSA uses TWIC and HME criminal offenses and look-back period, and terrorism standards. Also, the immigration standard for TSA PreCheck® is more stringent than the standards for TWIC

<sup>52</sup> See 49 CFR 1572.5(e)(6).

<sup>53</sup> For information about the NEXUS program, see <https://www.cbp.gov/travel/trusted-traveler-programs/nexus>.

<sup>54</sup> For information about the SENTRI program, see <https://www.cbp.gov/travel/trusted-traveler-programs/sentri>.

<sup>55</sup> See 8 CFR parts 103 and 235.

<sup>51</sup> Note that the complete list of data sources TSA uses in this portion of the STA is Sensitive Security Information and subject to protection in accordance with 49 CFR part 1520.

and HME. Consequently, individuals who have successfully passed the TSA PreCheck® STA have completed a comparable Level 3 STA.

This proposed section on comparability and proposed § 1530.307 on fee comparability are closely related. As explained in the discussion of proposed § 1530.307, the fee structure proposed in this rulemaking is portioned into segments based on the services TSA provides when conducting STAs. When processing an STA application, if TSA can rely on a comparable check from an earlier STA, it does not have to perform that service again, and it will not have to charge the individual the full fee for that service. This reduces the financial burden on individuals requiring more than one STA.

#### *H. Proposed Subpart G—Appeal and Waiver Procedures for Security Threat Assessments*

**1. Introduction.** In subpart G, TSA proposes redress provisions for individuals adversely affected by the STA requirements in 49 CFR part 1530. These proposed standards are consistent with the redress provisions codified in 49 CFR part 1515, Appeal and Waiver Procedures for Security Threat Assessments for Individuals, for individuals who are required to undergo STAs for the TWIC, HME, and certain air cargo programs.<sup>56</sup> Part 1515 will continue to apply according to its terms (although TSA may revise the part heading in the final rule for this rulemaking to clarify the scope of part 1515), and subpart G of part 1530 would apply to individuals who work for public transportation, railroads, and OTRB operators and undergo an STA set forth in this rulemaking. The standards in part 1515 were previously subject to notice and comment and have been in place for over 10 years. TSA believes the redress procedures we propose in subpart G are effective, efficient, and relatively easy to follow for individuals, including those who do not wish to hire an attorney for this process. However, TSA welcomes comments from covered entities that may be impacted by the proposed rule and the public on ways to improve the vetting process while still reducing security risk in the respective transportation modes.

Proposed subpart G describes the procedures for: (1) requesting waivers of the criminal standards; (2) appealing disqualifications based on the criminal

history, immigration, or terrorism/other analyses checks; (3) ALJ review of TSA's waiver and appeal determinations; and (4) review of ALJ decisions by the TSA Final Decision Maker.

**2. Proposed § 1530.601.** TSA proposes the scope and general requirements for subpart G in this section. Paragraphs (a) and (b) would establish that individuals who apply for an STA under part 1530 and who are eligible to request an appeal or waiver, fall within the scope of this part. Paragraph (c) explains that TSA does not disclose classified information or other information that is protected by law, or for which disclosure is not warranted. Paragraph (d) explains that an individual may, but is not required to, hire an attorney to represent them in an appeal or waiver proceeding, at the individual's expense. Paragraph (e) explains that the individual may request an extension of time for submitting appeal or waiver paperwork to TSA. These requests must be in writing, explain the reason for the extension, and be served on TSA prior to the deadline that needs to be extended. TSA generally grants extensions of time in the redress process when individuals meet these proposed standards.

**3. Proposed § 1530.603.** Reserved.

**4. Exhaustion of Administrative Remedies.** Before explaining the redress procedures an individual would use to appeal a TSA final decision (which are set forth below), it is important to discuss the principle of exhausting the administrative remedies TSA provides in subpart G before seeking review by the courts. The doctrine of exhaustion of remedies is based on the need to conserve judicial resources and ensure that factual issues are resolved by the agency with the expertise and responsibility for administering the program at issue. The doctrine allows agencies to develop a full factual record, correct errors, minimize costs, and create a uniform approach to the issues within its jurisdiction. This process benefits individuals by resolving disputes more quickly and at lower cost through TSA rather than the Federal courts. If the individual ultimately seeks review in the Court of Appeals following TSA's final agency order, the court will have a full record on which to base its review and the issues will be narrowed to those that truly require judicial review. In a case where TSA issued a preliminary denial of a TWIC application and the individual sought review by a U.S. District Court rather than first appealing the decision to TSA, the court dismissed his claim stating that he must first exhaust the administrative remedies in TSA's

redress regulations.<sup>57</sup> The court stated that it needed a more developed factual record to effectively evaluate the case. Also, the court held that TSA should have the opportunity to correct any errors and narrow the issues, which can be achieved through exhausting administrative remedies, before initiating judicial review.

For all of the foregoing reasons, TSA is proposing to require individuals to exhaust the administrative remedies set forth in subpart G before seeking judicial review.

Under this proposal, an individual would not seek judicial review until TSA has issued its "final agency order." Throughout proposed subpart G, we clearly identify the point at which a TSA decision is a "final agency order," and thus, when an individual may pursue judicial review. Note that for purposes of the rulemaking, "final agency order" and "final agency action" have the same meaning.

**5. Proposed § 1530.605.** In this section, TSA proposes the procedures that would apply to appeals to TSA concerning the criminal, immigration, and mental capacity standards in part 1530.

Paragraph (a)(3) pertains to appeals based on determinations that an individual lacks mental capacity under proposed §§ 1530.501 and 1530.503. It is important to note that TSA does not have access to health-related databases and information concerning mental health issues. However, TSA may become aware of mental health issues through the CHRC, when an individual is found not guilty by reason of insanity of a disqualifying criminal conviction.

Paragraph (b) of this section proposes the grounds for appeal that may be raised. Individuals may assert that they do meet the eligibility standards and (1) TSA's decision was based on factually incorrect information; or (2) TSA failed to apply the eligibility standards in accordance with the regulations. For instance, if a criminal rap sheet reveals a conviction for a disqualifying offense, but fails to include the fact that the conviction was later overturned, an individual may use this as the basis for an appeal. Also, if TSA fails to correctly apply the list of criminal disqualifiers that appear in part 1530, this failure to adhere to the standards would constitute grounds for an appeal.

Paragraphs (c)–(h) of this section propose the procedures and timeframes for initiating an appeal, responding to a PDI or a PDIIR, correcting inaccurate records, and TSA's issuance of a final

<sup>56</sup> For a full discussion of the development of the provisions in 49 CFR part 1515, see the HME interim final rule (68 FR 23852, May 5, 2003), and the TWIC final rule (72 FR 3492, Jan. 25, 2007).

<sup>57</sup> See *Mohamed Al Seraji v. Gowadia*, No. 8:16-cv-01637-JLS-JCG (C.D. Cal. Apr. 28, 2017).

determination. Under these procedures, an individual must request an appeal in writing to TSA, and it may be in the form of a request for the records on which TSA's PDI or PDIIR are based, or as a reply to the PDI or PDIIR. The individual must initiate the appeal within 60 days of service of the PDI or PDIIR, or request an extension of time. TSA may request documents from appellants that are necessary to make a final determination. If the data on which TSA made its preliminary decision of ineligibility is incomplete or inaccurate, proposed § 1530.605(f) describes how an individual can correct the information.

Paragraph (g) of this section proposes the procedures TSA would follow in making a final determination on eligibility and the individual's appeal. If TSA determines that the PDI/PDIIR is incorrect, TSA would withdraw the PDI/PDIIR and notify the individual, and the employer or operator, where applicable. If TSA determines that the preliminary determination was correct, TSA would serve a FDI on the individual, and where applicable, the employer or operator.

Paragraph (h) explains that TSA's FDI based on criminal, immigration, and mental capacity standards would constitute a final agency order or action under 49 U.S.C. 46110.<sup>58</sup> This means that upon receiving the FDI, there are no additional redress procedures within TSA for an individual to use. At this point, the individual may seek review in the Court of Appeals or accept TSA's final determination. These appeals based on criminal, mental capacity, and immigration involve objective facts and documents, and thus, it would be highly unlikely for TSA's final decision to be in error and need further review by an ALJ or the TSA Final Decision Maker.

6. *Proposed § 1530.607.* In this section, TSA sets forth proposed standards for requesting a waiver due to criminal offense or mental capacity. Under this proposed rule, TSA would not consider waiver requests for failure to meet immigration standards or for the terrorism/other analysis checks. It would be inconsistent with the 9/11 Act, the principles of security vetting, and similar waiver programs to entertain waiver requests for these issues. There is no reasonable basis on which TSA would determine that a waiver should be granted to an individual who does not meet the immigration standards or is deemed to pose a threat to national or

transportation security, or of terrorism under 1530.507(a). As proposed in paragraph (b), however, TSA would consider a waiver when an individual (1) who committed a disqualifying offense, now asserts that he or she is rehabilitated and no longer poses a security risk; (2) who suffered from mental capacity issues, asserts that those health issues no longer exist; or (3) was disqualified for a criminal history under § 1530.507(b).

In paragraph (c), TSA proposes that individuals must complete the enrollment process, including paying all applicable fees, before he or she may apply for a waiver. For instance, an individual who knows he was convicted of a disqualifying offense within the previous 7 years and wishes to apply for a waiver of that offense, must complete the enrollment process so that TSA receives the pertinent criminal records from the FBI that verify the disqualifying issue. The applicant may submit a request for a waiver, which must be received *no earlier than* the date that the individual submitted the application and fee, and *no later than* 60 days after final disposition of an appeal undertaken consistent with § 1530.605 of this subpart. An individual preserves the right submit a waiver request if he or she requests an extension of time in accordance with § 1530.601(e) of this part and the request is granted.

Paragraph (c)(2) describes the factors that TSA would consider when evaluating a waiver request, including the circumstances of the crime, restitution the individual has paid, court or other official records indicating that the individual no longer lacks mental capacity, the length of the prison term, the time that has elapsed since release from prison, criminal activity that has occurred following release from prison, and other factors relevant to the individual's waiver request. TSA would consider letters of reference from employers, clergy, probation officers, family members, and others with knowledge of the individual's character and rehabilitation since the crime occurred.

TSA adjudicators and analysts would evaluate the paperwork submitted, and communicate with the individual, if necessary, to gain additional information to ensure that the waiver request package is complete. TSA has established a Waiver Review Board, which includes security analysts and senior managers, to meet regularly to consider each waiver request. Because waiver decisions are somewhat subjective, TSA established this process to ensure consistency and avoid individual bias in reviewing waiver

requests. The Waiver Review Board makes a recommendation to grant or deny a waiver to the Assistant Administrator. The Assistant Administrator reviews the recommendation and waiver paperwork and makes a final decision to grant or deny the waiver request.

Paragraph (d) explains that, within 60 days of TSA receiving the waiver request, TSA would serve a written decision granting or denying the waiver request on the individual. If TSA denies the waiver, the individual may appeal the decision to an ALJ. TSA's waiver denial is not a final agency action under 49 U.S.C. 46110. The individual may not, therefore, appeal this decision to the court system at this time, but must first seek review by an ALJ (as described in § 1530.611) and then if necessary, a TSA Final Decision Maker (as described in § 1530.613).

7. *Proposed § 1530.609.* In this section, TSA proposes the procedures an individual would use to appeal TSA's preliminary determination that the individual failed the terrorism/other analyses portion of the STA. Paragraph (b) explains that the only grounds for an appeal of the terrorism/other analyses PDI is an assertion that the individual meets the standards for the STA for which he or she is applying. For instance, an individual could argue that he or she has been misidentified as another person who poses a security threat. Also, the individual may assert that even if he or she has been correctly identified, nonetheless, the person does not pose a security threat. Paragraph (c) states that the procedures proposed for § 1530.605(c)-(h), described above, also apply to this section.

In paragraph (d)(1) of this section, TSA proposes that 60 days after service of the individual's appeal, TSA would serve a final determination on the individual, and where applicable, the individual's employer. For instance, in this rulemaking, public transportation operators may not employ an individual in a security-sensitive position unless the individual successfully completed a Level 2 STA, which includes the terrorism/other analyses check. If TSA determines that an individual does not pass the Level 2 STA, TSA would have to notify the operator of this determination so that the operator does not assign the individual a security-sensitive position.

As proposed in paragraph (d)(2), if TSA determines that the PDI or PDIIR was issued in error, TSA would withdraw it by serving notification on the individual, and where appropriate, the employer.

<sup>58</sup>This section of the code governs judicial review of TSA's final agency orders, and requires litigants to challenge final agency orders in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of TSA's order.



Paragraph (e) addresses further review of a case in which TSA denies the individual's appeal. TSA's denial of the appeal under this section is not a final agency action under 49 U.S.C. 46110, and, therefore, the individual may not seek review in the courts at this juncture. If the individual wishes to seek additional review of TSA's final determination, he or she would seek review by an ALJ, and those procedures are set forth in proposed § 1530.611, described below. If the individual does not seek review by an ALJ within 30 days of TSA's decision, the decision then becomes final.

8. *Proposed § 1530.611.* In this section, TSA proposes the procedures for an individual who wishes to seek review of a TSA decision by an ALJ. Paragraph (a) describes the two types of appeals that are eligible for ALJ review. An ALJ may review (1) an appeal of TSA's decision to deny a waiver as set forth in § 1530.607, and (2) an appeal of TSA's decision to deny an appeal based on the terrorism/other analyses check as set forth in § 1530.609.

Paragraph (b) explains how the individual must request ALJ review. The request must be in writing and served within 30 days of the date that TSA served the decision that the individual seeks to appeal to the ALJ. The individual must include the issues that the individual wants the ALJ to consider, copies of the individual's request for a waiver or initial appeal with all supporting documents, and copies of TSA's denial of the waiver request or appeal. Paragraph (b)(5) provides the address to use for ALJ review requests.

Paragraph (b)(2) explains that a request for ALJ review may not include material, evidence, or information that was not also presented to TSA in the original waiver request or appeal. As stated in paragraph (b)(3), if the individual has new material, evidence, or information that was not available to TSA, the individual should file a new waiver request or appeal with TSA, and the ALJ review request would be dismissed. To preserve ALJ resources and ensure that TSA makes decisions that fall within its expertise, in keeping with principles of the exhaustion of administrative remedies, any new information should be used to begin a new review by TSA, not the ALJ.

Paragraph (b)(4) explains that the individual may request an in-person hearing before the ALJ. Paragraph (c) addresses extensions of time during the ALJ review process. Both parties may request extensions of time in writing, and they should be received by the ALJ within a reasonable time before the date

that must be extended. Paragraph (d) describes the duties of the ALJ, which are the same procedures that currently apply to cases that ALJs review in TWIC and HME waiver denials, and are fairly standard for administrative process. TSA proposes that the ALJ must have the appropriate level of security clearance necessary to review any information, including classified information, that is relevant to reviewing the case. As proposed, the ALJ should consider a request for an in-person hearing, by evaluating whether there are genuine issues of fact about the evidence or information the individual submits as part of his or her waiver request or appeal to TSA, or whether TSA's determination on the waiver or appeal was completed in accordance with the regulations. If an in-person hearing takes place, a verbatim transcript would be made, at no cost to the individual. If the individual fails to appear, the ALJ may issue a default judgment against the individual. The standard of proof for the hearing would be substantial evidence on the record.

Under the ALJ procedures, we propose that TSA will not disclose classified information or other information protected under the law. TSA, however, may prepare an unclassified summary of the information for the appealing party, if an unclassified summary can be provided consistent with national security concerns. The ALJ would review the record of decision, including any classified information upon which the decision relies, on an *ex parte, in camera* basis, and may consider this information in making a final decision if the information appears to be material and relevant.

Paragraph (f) describes the procedures that apply for the ALJ's final decision. As proposed, the ALJ would issue a final decision within 60 days from the close of the record, and serve the decision on the parties. Either party may appeal the ALJ decision to the TSA Final Decision Maker. If the ALJ overturns TSA's waiver or appeal decision and TSA does not appeal that to the Final Decision Maker, TSA would issue an order granting the waiver or withdraw the final determination on the appeal, as applicable. If the ALJ upholds TSA's decision and the individual does not seek review by the TSA Final Decision Maker, TSA would issue a final agency order denying a waiver to the individual or issue a Final Order of Ineligibility, as applicable.

9. *Proposed § 1530.613.* TSA proposes the procedures for appealing an ALJ decision to the TSA Final Decision Maker in this section. The non-

prevailing party in the ALJ proceeding may request a review of the ALJ's decision by the TSA Final Decision Maker within 30 days from the date of service of the ALJ's decision. Requests for review must be in writing, served on the opposing party, and relate only to whether the ALJ's decision was based on substantial evidence on the record. Within 60 days of receiving the request for review (or within 30 days of receiving a response from the other party), the TSA Final Decision Maker would issue the final decision. The decision of the TSA Final Decision Maker constitutes a final agency order in accordance with 49 U.S.C. 46110. If the individual wishes to appeal the TSA Decision Maker's final order, that appeal must be filed in the U.S. Court of Appeals for the District of Columbia Circuit or in the court of appeals of the United States for the circuit in which the person resides or has its principal place of business within 60 days of the TSA Decision Maker's final order.

#### **IV. Analysis of Proposed Changes to Parts 1500, 1570, 1572, 1580, 1582, and 1584**

##### *A. Introduction*

TSA proposes to make changes to 49 CFR parts 1500, 1570, 1572, 1580, 1582, and 1584 in this rulemaking. Each of these proposed changes are described below.

##### *B. Proposed Changes to Part 1500*

“Security threat assessment” would mean a procedure conducted by TSA consisting of one or more checks of relevant databases and other sources of information to verify an individual's identity, and to determine whether the individual is eligible for certain access to the nation's transportation systems, or for certain privileges or credentials. The proposed definition would provide a concrete understanding of the term that encapsulates the entire process of vetting the individual. It would also promote consistent use of terminology throughout TSA's regulations, most importantly that a security threat assessment is the overall process, which is comprised of one or more checks, such as a CHRC, or a check of databases. TSA considers the terms “security threat assessment,” as proposed here, and “security background check,” as established in the Security Training rulemaking to be functionally synonymous. TSA intends generally to reserve the use of “security background check” to the specific context of proposed § 1570.305.

### C. Proposed Changes to Part 1570

As explained previously, this proposed rule is one of three rulemakings TSA is presently conducting to implement the 9/11 Act. The Security Training NPRM proposed extensive changes to part 1570, including reserving subpart D for proposals related to vetting. In this rulemaking, we propose changes to part 1570, subpart D, that build on the proposals in the Security Training NPRM.

TSA proposes to add § 1570.307 to subpart D to explain that specific vetting requirements for maritime and land transportation would be set in the parts that relate to each industry. For instance, the proposals for the owner/operators and individuals in freight rail would be in part 1580, public transportation and passenger rail would be in part 1582, and OTRB would be in part 1584.

As a matter of organization and clarity, we think it would be easier for each type of owner/operator and its employees to first look at the part of TSA regulations that applies to it, in order to determine who must be vetted and the level of vetting required. The requirements may vary, and we believe placing them in the specific part of title 49 that corresponds to that type of operator would be best.

### D. Proposed Change to Part 1572

TSA proposes to revise the title of part 1572 from “Credentialing and Security Threat Assessments” to “Credentialing and Security Threat Assessments for the Hazardous Materials Endorsement and Transportation Worker Identification Credential Programs.” This is an administrative change TSA proposes to make to clarify that part 1572 applies only to the HME and TWIC programs. As our vetting authorities expand and there are new vetting standards in various parts of the CFR, we believe it is necessary to change the title of part 1572 so that individuals and owner/operators understand that it applies only to two programs.

### E. Proposed Changes to Part 1580

TSA proposes to add “Subpart D—Security Threat Assessment Requirements for Owner/Operators and Individuals” to part 1580, as promulgated in the Security Training rulemaking, to implement the 9/11 Act vetting requirements in freight rail.<sup>59</sup>

1. *Proposed § 1580.3.* This section would make clear that the terms defined

in §§ 1500.3, 1500.5, and 1503.103, of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, also apply when used in this part.

2. *Proposed § 1580.301.* Paragraph (a) would set out the obligations of freight rail owner/operators with regard to STA requirements for the security coordinators who would be designated according to the requirements of the Security Training rulemaking. Section 1570.201(a), as set forth in the Security Training final rule, requires freight rail owner/operators to designate and use a primary and at least one alternate security coordinator. These requirements apply to the operators listed in 49 CFR 1580.101, which are:

- Class 1 freight railroad carriers;
- Rail hazardous materials shippers that transport one or more of the categories and quantities of rail security-sensitive materials (RSSM) in a high threat urban area (HTUA);
- Rail carrier that serves as a host railroad to a Class 1 carrier, rail hazardous materials shipper that transports RSSM in an HTUA, or a passenger operation described in 49 CFR 1582.101.

Proposed paragraph (a)(1) would set out the primary requirement that a covered freight rail owner/operator must not authorize or permit an individual to serve as a primary or alternate security coordinator unless he or she has successfully completed a Level 3 STA and holds a current DOE from TSA.

As explained above in section II.B.2. of the preamble, security coordinators should undergo a Level 3 STA because of their access to sensitive-security and personally-identifiable information, as well as the critical security functions they perform. These responsibilities and functions require a high level of confidence that the individual is trustworthy. As explained above, a Level 3 STA consists of a criminal history, terrorism/other analyses, and immigration check. Successful completion of this Level 3 STA would increase confidence that the individual is sufficiently trustworthy to assume the position.

To comply with proposed paragraph (a)(1), owner/operators would need a definitive source of information from TSA regarding an individual’s STA. TSA expects to create a web-based portal for owner/operators to access, which would include the results of the STAs of that owner/operator’s workers. TSA has considered other methods of employer notification, such as mailing letters, but believes this method would be more cost-effective and minimizes the risk of fraud or missing records

associated with paper documents and mail service. TSA invites comment from the industry as to other potential methods of notification, as well as the relative advantages and disadvantages of the options.

Paragraph (a)(2) would require the owner/operator to retain records documenting compliance with paragraph (a)(1). TSA does not propose a specific format of documentation. TSA prefers to retain flexibility to permit various formats depending on owner/operator needs and capabilities. TSA will work with each owner/operator to assure that the recordkeeping process complies with TSA’s inspection needs. As part of inspecting compliance with the STA requirements, TSA must be able to review these records to ensure that the STA requirements have been met at the appropriate time. TSA invites comment from owner/operators as to how most will satisfy this requirement and other ideas for meeting it.

Paragraph (b)(1) would set out the primary requirement that a covered freight rail owner/operator must not authorize or permit an individual to serve as a security-sensitive employee, unless he or she has successfully completed a Level 2 STA and holds a current DOE from TSA. TSA proposes to require a Level 2 STA, consisting of terrorism/other analyses and immigration check in the United States, for security-sensitive employees, which satisfies the requirements of section 1520 of the 9/11 Act.

As explained above in the discussion of security coordinator STA requirements, TSA expects to create a web-based portal for owner/operators to access, which would include the results of the STAs of that owner/operator’s security-sensitive employees.

Proposed paragraph (b)(2), with regard to recordkeeping, is similar to proposed paragraph (a)(2) explained above.

Paragraph (c) proposes continuing responsibilities for owner/operators after the initial vetting of security coordinators and security-sensitive employees. Paragraph (c)(1) would require an owner/operator to remove an individual from a position as a security coordinator or a security-sensitive employee if notified by TSA that the individual is no longer eligible for the position. TSA would issue such a notification if, for example, the recurrent terrorism/other analyses check subsequently reveals information indicating that the individual poses or may pose a threat to transportation security or national security, or of terrorism.

<sup>59</sup> See 9/11 Act sections 1520 and 1522, which are codified at 6 U.S.C. 1170(d).

Paragraph (c)(2) would require an owner/operator that becomes aware of information that an individual is or may not be eligible to serve as a security coordinator or security-sensitive employee to notify TSA immediately. This responsibility would arise, for example, if the owner/operator becomes aware that a security coordinator has been arrested for or convicted of a potentially disqualifying crime.

Paragraph (c)(3) would provide that an owner/operator may reassign an individual as a security coordinator or security-sensitive employee if notified by TSA that he or she regained eligibility. For example, if TSA notified an owner/operator under proposed paragraph (c)(1) that an individual is ineligible, but subsequently determines that the factor causing the ineligibility had been resolved, TSA would notify the owner/operator under paragraph (c)(3).

2. *Proposed § 1580.303.* This section would set out the obligations of individuals employed by covered freight rail owner/operators who must undergo an STA, either as a security coordinator (proposed paragraph (a)) or a security-sensitive employee (proposed paragraph (b)).

Paragraph (a) would provide that an individual must not work as a security coordinator for a freight rail owner/operator, unless he or she successfully completes a Level 3 STA and holds a current Determination of Eligibility. Paragraph (a) would also specify that the criminal history records check conducted as part of the Level 3 STA would be adjudicated against the list of disqualifying crimes in proposed § 1530.503, which, as described above, would be the list of disqualifying crimes that currently apply to certain surface and maritime workers under § 1572.103.

Paragraph (b) would provide that an individual must not work as a security-sensitive employee unless he or she successfully completes a Level 2 STA and holds a current Determination of Eligibility. The rationale for requiring this level of vetting is explained above in section II.B.1. of the preamble.

3. *Proposed § 1580.305.* This section would require the use of TSA enrollment centers by individuals, as well as the owner/operators of those individuals, required to apply for an STA under these proposed regulations. The reasons for this proposed requirement is explained above in section II.B.5. of the preamble.

4. *Proposed § 1580.307.* As explained above in section II.B.7. of the preamble, TSA proposes a phased implementation of the vetting requirements proposed in this rule. Under paragraph (a), the

vetting requirements for primary and alternate security coordinators would become effective 6 months from the publication date of the final rule. Under paragraph (b), the vetting requirements for security-sensitive employees would become effective 12 months from the publication date of the final rule. It is important to note that the time it takes to process Level 2 STA processing is typically less than 10 days, and less than 30 days for Level 3 STA processing. We invite comment from employers and workers on these proposed effective dates. Specifically, TSA is interested in the time employers anticipate it will take to prepare for the effective dates, how many employees fall into each category, and whether the number of employees can be vetted within the allotted time.

#### *F. Changes to Part 1582*

TSA proposes to add “Subpart C—Security Threat Assessment Requirements for Owner/Operators and Individuals” to part 1582, as set forth in the Security Training final rule, to implement the vetting requirements of the 9/11 Act for public transportation and passenger rail.

1. *Proposed § 1582.3.* This section would make clear that the terms defined in §§ 1500.3, 1500.5, and 1503.103, of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, also apply when used in this part.

2. *Proposed § 1582.201.* This section would set out the obligations of covered public transportation and passenger rail owner/operators with regard to STA requirements for the security coordinators who would be designated according to the requirements of the Security Training rulemaking. Under the Training final rule, section 1570.201(a) requires public transportation and passenger rail owner/operators described in § 1582.1(a) to designate and use a primary and at least one alternate security coordinator. These owner/operators include: passenger railroad carriers, public transportation agencies, and operators of rail transit systems that are not operating on tracks that are part of the general railroad system, including heavy rail transit, light rail transit, automated guideway, cable car, inclined plane, funicular, and monorail systems.

Proposed paragraph (a)(1) would set out the primary requirement that a covered public transportation and passenger railroad operator must not authorize or permit an individual to serve as a primary or alternate security coordinator, unless he or she has successfully completed a Level 3 STA

and holds a current DOE from TSA. As set forth in the Security Training final rule, this requirement would apply to all owner/operators described in § 1582.1(a)(1)–(3), and to an owner/operator described in § 1582.1(a)(4), if it is notified by TSA that a threat exists pursuant to 49 CFR 1570.201(b)). As explained above in section II.B.2. of the preamble, TSA believes that security coordinators should be required to undergo a Level 3 STA based on the access to sensitive-security and personally-identifiable information they have. As explained previously, a Level 3 STA consists of a criminal history, terrorism/other analyses, and immigration check. Successful completion of this Level 3 STA will increase confidence that the individual is sufficiently trustworthy to assume the position, and the proposed requirement that he or she continues to hold a current DOE would require his or her removal if he or she becomes ineligible in the future.

To comply with proposed paragraph (a)(1), owner/operators would receive a notification from TSA regarding an individual’s STA. TSA expects to create a web-based portal for owner/operators to access, which would include the results of the STAs of that owner/operator’s workers. TSA has considered other methods of employer notification, such as mailing letters, but believes this method would be more cost-effective and minimizes the risk of fraud or missing records associated with paper documents and mail service. TSA invites comment from the industry as to other potential methods of notification, and the relative advantages and disadvantages of the options.

Paragraph (a)(2) would require the owner/operator to retain records documenting compliance with proposed paragraph (a)(1). TSA proposes to allow owner/operators flexibility as to the format, paper or digital, of storage, as long as the form and manner is authorized by TSA. As part of inspecting compliance with the STA requirements, TSA must be able to review these records to ensure that the STA requirements have been met at the appropriate time. TSA invites comment from owner/operators as to how most will satisfy this requirement and other ideas for meeting it.

In proposed § 1580.203 (b) and as discussed above, TSA proposes to require that such security-sensitive employees successfully complete a Level 2 STA. Paragraph (b)(1) of this section tracks the same requirements as in paragraph (a)(1), but for security-sensitive employees instead of security coordinators. TSA proposes that a

covered owner/operator must not authorize or permit a person to serve a security-sensitive employee, unless he or she has successfully completed a Level 2 STA and holds a current DOE. This level of vetting satisfies section 1411 of the 9/11 Act.

Proposed paragraph (b)(2) with regard to recordkeeping is similar to proposed paragraph (a)(2) explained above.

Paragraph (c) proposes continuing responsibilities for owner/operators after the initial vetting of security coordinators and security-sensitive employees. Paragraph (c)(1) would require an owner/operator to remove an individual from a position as a security coordinator, or a security-sensitive employee, if notified by TSA that the individual is no longer eligible for the position. TSA would issue such a notification if, for example, the recurrent terrorism check subsequently reveals information indicating that the individual poses or may pose a threat to transportation security or national security, or of terrorism.

Paragraph (c)(2) would require an owner/operator that becomes aware of information that an individual may not be eligible to serve as a security coordinator or security-sensitive employee to notify TSA immediately. This responsibility would arise, for example, if the owner/operator becomes aware that a security coordinator has been convicted for a potentially disqualifying crime.

Paragraph (c)(3) would provide that an owner/operator may reassign an individual as a security coordinator or security-sensitive employee if notified by TSA that he or she regained eligibility. For example, if TSA notified an owner/operator under proposed paragraph (c)(1) that an individual is ineligible, but subsequently determines that the factor causing the ineligibility had been resolved, TSA would notify the owner/operator under paragraph (c)(3).

**3. Proposed § 1582.203.** This section would set out the obligations of individuals employed by covered public transportation and passenger rail owner/operators who must undergo an STA, either to serve as a security coordinator (proposed paragraph (a)) or as a security-sensitive employee (proposed paragraph (b)).

Proposed paragraph (a) would provide that an individual must not work as a security coordinator for a public transportation or passenger rail owner/operator unless he or she successfully completes a Level 3 STA and holds a current DOE. The reasons for requiring a Level 3 STA, and the checks that would compose this level of vetting are

explained above in section II.B.2. of the preamble. Paragraph (a) would also specify that the CHRC conducted as part of the Level 3 STA would be adjudicated against the list of disqualifying crimes in proposed § 1530.503(a), which is the list of disqualifying crimes applicable to surface and maritime vetting conducted by TSA.

Paragraph (b) would provide that an individual must not work as a security-sensitive employee unless he or she successfully completes a Level 2 STA, and holds a current DOE. The rationale for requiring this level of vetting is explained above in section II.B.1. of the preamble.

**4. Proposed § 1582.205.** This section would require the use of TSA enrollment centers by individuals, and their owner/operators, required to apply for an STA under these proposed regulations. The reasons for this proposed requirement is explained above in section II.B.5. of the preamble.

**5. Proposed § 1582.207.** As explained above in section II.B.7. of the preamble, TSA proposes a phased implementation of the vetting requirements proposed in this rule. Under paragraph (a), the vetting requirements for primary and alternate security coordinators would become effective 6 months from the publication date of the final rule. Under paragraph (b), the vetting requirements for security-sensitive employees would become effective 12 months from the publication date of the final rule.

We invite comment from employers and workers on these proposed effective dates. Specifically, TSA is interested in the time employers anticipate it will take to prepare for the effective dates, how many employees fall into each category, and whether the number of employees can be vetted within the allotted time.

#### *F. Proposed Changes to Part 1584*

In this rulemaking, TSA proposes to add “Subpart C—Security Threat Assessment Requirements for Owner/Operators and Individuals” to part 1584, in keeping with provisions established in the Security Training rule for the 9/11 Act vetting requirements for OTRB.

**1. Proposed § 1584.3.** This section would make clear that the terms defined in §§ 1500.3, 1500.5, and 1503.103, of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, also apply when used in this part.

**2. Proposed § 1584.201.** This section would set out the obligations of OTRB owner/operators with regard to STA requirements for the security coordinators designated in accordance

with the Security Training final rule. Section 1570.201(a) requires OTRB owner/operators described in § 1584.101 to designate and use a primary and at least one alternate security coordinator. Under § 1584.101 these OTRB owner/operators are limited to those that originate, travel through, or in, a geographic location identified in appendix A to 49 CFR part 1584.

Proposed paragraph (a)(1) would set out the primary requirement that a covered OTRB owner/operator must not authorize or permit an individual to serve as a primary or alternate security coordinator, unless he or she has successfully completed a Level 3 STA and holds a current DOE. As explained above in section II.B.2. of the preamble, TSA believes that security coordinators should undergo a Level 3 STA based on their access to sensitive security and personally identifiable information. As explained above, a Level 3 STA consists of criminal history, terrorism/other analyses, and immigration checks. Successful completion of this Level 3 STA will increase confidence that the individual is sufficiently trustworthy to assume the position, and the proposed requirement that he or she continues to hold a current DOE would require his or her removal if he or she becomes ineligible in the future.

To comply with proposed paragraph (a)(1), owner/operators must receive a definitive notification from TSA regarding an individual’s STA. TSA expects to create a web-based portal for owner/operators to access, which will include the results of the STAs of that owner/operator’s workers. TSA has considered other methods of employer notification, such as mailing letters, but believes this method would be more cost-effective and minimizes the risk of fraud or missing records associated with paper documents and mail service. TSA invites comment from the industry as to other potential methods of notification, as well as the relative advantages and disadvantages of the options.

Paragraph (a)(2) would require the owner/operator to retain records documenting compliance with proposed paragraph (a)(1). TSA proposes to allow owner/operators flexibility as to the format, paper or digital, of storage, as long as the form and manner is authorized by TSA. As part of inspecting compliance with the STA requirements, TSA must be able to review these records to ensure that the STA requirements have been met at the appropriate time. TSA invites comment from owner/operators as to how most will satisfy this requirement and other ideas for meeting it.

Paragraph (b) proposes continuing responsibilities for owner/operators after the initial vetting of security coordinators. Paragraph (b)(1) would require an owner/operator to remove an individual from a position as a security coordinator, if notified by TSA that the individual is no longer eligible for the position. TSA would issue such a notification if, for example, the recurrent terrorism check subsequently reveals information indicating that the individual poses or may pose a threat to transportation security or national security, or of terrorism.

Paragraph (b)(2) would require an owner/operator that becomes aware of information that an individual may not be eligible to serve as a security coordinator to notify TSA immediately. This responsibility would arise, for example, if the owner/operator becomes aware that a security coordinator has been arrested or convicted for a potentially disqualifying crime.

Paragraph (b)(3) would provide that an owner/operator may reassign an individual as a security coordinator if notified by TSA that he or she regained eligibility. For example, if TSA notified an owner/operator under proposed paragraph (b)(1) that an individual is ineligible, but subsequently determines that the factor causing the ineligibility had been resolved, TSA would notify the owner/operator under paragraph (b)(3).

3. *Proposed § 1584.203.* This section would set out the obligations of individuals employed by covered public OTRB owner/operators who must undergo an STA to serve as a security coordinator.

Paragraph (a) would provide that an individual must not work as a security coordinator for a covered OTRB owner/operator, unless he or she successfully completes a Level 3 STA and holds a current DOE. The reasons for requiring a Level 3 STA, and the checks that would compose this level of vetting are explained above in section II.B.2. of the preamble. Paragraph (a) would also specify that the CHRC conducted as part of the Level 3 STA would be adjudicated against the list of disqualifying crimes in proposed § 1530.503.

4. *Proposed § 1584.205.* This section would require the use of TSA enrollment centers by individuals required to apply for an STA under these proposed regulations. The reasons for this proposed requirement is explained above in section II.B.5. of the preamble.

5. *Proposed § 1584.207.* As explained above in section II.B.7. of the preamble, TSA proposes a phased implementation

of the vetting requirements proposed in this rule. Under paragraph (a), the vetting requirements for primary and alternate security coordinators would become effective 6 months from the publication date of the final rule. We invite comment from employers and workers on these proposed effective dates. Specifically, TSA is interested in the time employers anticipate it will take to prepare for the effective dates, how many employees fall into each category, and whether the number of employees can be vetted within the allotted time.

## V. Regulatory Analyses

### A. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501. *et seq.*) requires that TSA consider the impact of paperwork and other information collection burdens imposed on the public and, under the provisions of 44 U.S.C. 3507(d), obtain approval from the OMB for each collection of information it conducts, sponsors, or requires through regulations.

Under existing OMB Control No. 1652–0051, OMB has approved a related information collection request for contact information of freight railroad carriers, passenger railroad carriers, and rail transit systems primary security coordinators and alternate security coordinators, as well as reporting significant security concerns by freight railroad carriers, passenger railroad carriers, and rail transit systems. Under the provisions of the proposed rule, the affected freight rail and PTPR entities would be required to modify or amend how they would perform their collection of the additional information required to complete STAs. The additional information collection requirement from the proposed rule relates to information that affected freight rail and PTPR employees would submit during STA enrollments, PDI appeals, and PDI waivers. These requirements would be added to the existing collection with OMB control number 1652–0051.

Revisions to OMB Control Number 1652–0051

This proposed rule contains new information collection activities subject to the PRA. The proposed rule would require OTRB security coordinators submit personal information during STA enrollments, PDI appeals, and PDI waivers. Accordingly, DHS and TSA invite the general public to comment on the impact to the proposed collection of information. In accordance with the PRA, the information collection notice

is published in the **Federal Register** to obtain comments regarding the proposed edits to the information collection instrument. Comments are encouraged and will be accepted for 90 days from the publication date of the proposed rule. All submissions should include the OMB Control Number 1652–0051 in the body of the letter and the agency name. To avoid duplicate submissions, please use only *one* of the methods under the **ADDRESSES** and I. Public Participation section of this rule to submit comments. Therefore, in preparation for OMB review and approval of the following information collection, TSA is soliciting comments to:

(1) Evaluate whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of IT (*e.g.*, permitting electronic submission of responses).

*Title:* TSA Security Vetting of Certain Surface Transportation Workers.

*Summary:* This proposed rule would require the following information collections:

First, owner/operators identified in 49 CFR 1580.303, 1582.203, and 1584.203 would be required to vet certain workers using security threat assessments (STAs) and for TSA to conduct the STAs. The proposed rule would establish the following three risk-based levels of STAs for different employee populations:

- *Level 1 STA:* Terrorism check and other analyses (including a check against the Terrorist Screening Database among other databases);
- *Level 2 STA:* Terrorism check and other analyses and immigration check; and
- *Level 3 STA:* Terrorism check and other analyses, immigration check, and criminal history record check (CHRC).

For certain freight rail and public transportation and passenger railroad (PTPR) owner/operators, the proposed rule would require security-sensitive employees and security coordinators to undergo a Level 2 STA and Level 3

STA, respectively. For certain over-the-road-bus (OTRB) owner/operators, the proposed rule would require only security coordinators to undergo a Level 3 STA. OTRB security-sensitive employees would not be required to undergo an STA under the proposed rule. The proposed rule would establish fees to be collected from security-sensitive employees and security coordinators undergoing an STA to recover TSA’s vetting costs as required by law.<sup>60</sup>

The proposed rule also sets out the standards for the adjudication of STAs and redress procedures for STA applicants. The proposed rule describes the standards TSA would use to make decisions about the eligibility of an STA applicant based on the information obtained from the STA check and the procedures TSA would follow when an STA applicant does not appear to meet, or may no longer meet, the proposed STA standards. When the latter occurs, TSA would notify the owner and/or operator that the individual is no longer eligible for the position, and notify the STA applicant or STA holder about the potentially disqualifying factors in a Preliminary Determination of Ineligibility (PDI) or Preliminary Determination of Ineligibility with Immediate Revocation (PDIIR). TSA would also issue a Final Determination of Ineligibility (FDI) if the applicant fails to request an appeal or waiver of the PDI or PDIIR within the required time frame, or TSA denies the appeal or waiver. For STA applicants who receive either a PDI, PDIIR, or FDI, the proposed rule sets out redress procedures. These proposed redress procedures are substantively the same as the current redress provisions codified in part 1515

that apply to individuals who are required to undergo an STA for the Transportation Worker Identification Credential (TWIC), Hazardous Material Endorsement (HME), and certain air cargo programs.<sup>61</sup>

This proposed rule would also require that owner/operators not authorize or permit an individual to serve as a security-sensitive employee, in the case of freight rail and PTPR, or a security coordinator for all three modes, unless the owner/operator verifies with TSA that the individual has successfully completed a Level 2 STA or Level 3 STA, respectively, and holds a current determination of eligibility (DOE) as described in the proposed rule. The owner/operators would also be required to retain records, in a form and manner authorized by TSA and for the period specified in the proposed rule, and make the records available to TSA when requested during inspection.

*Use of:* This information would be used to support implementation of the proposed rule, which requires completing a name-based security background check against the consolidated terrorist watchlist and an immigration check in the United States for all freight rail and PTPR security-sensitive employees; and those same two checks in addition to a CHRC for all security coordinators of freight rail, PTPR, and OTRB owner/operators. A redress process is required by the 9/11 Act to address due process. The proposed rule requires owner/operators to file and maintain records of STAs for all affected employees.

*Respondents:* The likely respondents to this information collection are affected employees of the owners and/or operators of covered surface modes, who are estimated to be approximately

355,730 over the next 3 years. TSA estimates the average annual number of respondents to be 118,457 over the same period, and the average annual number of responses to be 308,198.<sup>62</sup>

*Frequency:* Once the rule has been implemented, TSA estimates that STA enrollments and the corresponding recordkeeping would occur whenever vetting of an employee or security coordinator is required due to the hiring of new personnel, promotions into affected positions, and staff turnover. The initial implementation of the proposed rule would require all security-sensitive employees and security coordinators to obtain a DOE in order to continue performing in their roles, which—along with the 5-year renewal requirement—would establish a pattern of enrollment/renewal spikes every 5 years. The redress process frequency will follow the pattern of STA enrollments with a lag of a few weeks due to processing times. Each stage in the redress process would occur whenever an appeal is filed after a negative determination has been issued. STA enrollment satisfaction surveys would occur annually and individuals’ contact information would occur on a periodic basis.

*Annual Burden Estimate:* The average annual time burden for STA Enrollments, PDI Appeals, PDI Waivers, STA Recordkeeping, and STA Satisfaction Survey is expected to reach an annual average of 181,345 hours over the first 3 years. Table 12 displays the number of respondents for STA Enrollments, PDI Appeals, PDI Waivers, Recordkeeping, Contact Information Updates, and STA Customer Satisfaction Survey for Freight Rail, PTPR, and OTRB entities.

TABLE 12—PRA BURDEN ESTIMATE

Collections		Time per response (hours)	Number of responses			3-Year total responses	3-Year time burden (hours)	Average annual time burden (hours)
Industry	STA Enrollments		Year 1	Year 2	Year 3			
		a	b	c	d	e = Σb,c,d	f = a × e	g = f ÷ 3
Freight Rail	SSEs	1.43	114,828	4,593	4,543	123,964	177,195	59,065
	SCs	1.51	444	22	22	488	738	246
	Comparable STA SSEs	0.17	7,408	296	293	7,997	1,333	444
	Comparable STA SCs	0.17	453	22	22	497	83	28
FRSR	SCs	1.51	233	20	20	274	414	138
	Comparable SCs	0.17	262	22	23	308	51	17
	SSEs	1.43	178,760	20,728	20,788	220,276	314,865	104,955
PTPR	SCs	1.51	121	16	16	154	233	78
	Comparable STA SSEs	0.17	578	67	67	712	119	40
	Comparable STA SCs	0.17	109	14	15	138	23	8
	SCs	1.51	155	21	21	197	298	99

<sup>60</sup> TSA is statutorily required to fund the STA process through user fees (see 6 U.S.C. 469).

<sup>61</sup> For a full discussion of the development of the original provisions in 49 CFR part 1515, see Transportation Worker Identification Credential

(TWIC) Implementation in the Maritime Sector; Hazardous Materials Endorsement for a Commercial Driver’s License final rule, 72 FR 3492 (Jan. 25, 2007).

<sup>62</sup> The number of responses by affected individuals/entities include number of enrollments including comparable STAs, appeals, waivers, records, contact information updates, and customer satisfaction surveys processed.

TABLE 12—PRA BURDEN ESTIMATE—Continued

Industry	Collections STA Enrollments	Time per response (hours)	Number of responses			3-Year total responses	3-Year time burden (hours)	Average annual time burden (hours)
			Year 1	Year 2	Year 3			
		a	b	c	d	e = Σb,c,d	f = a × e	g = f ÷ 3
	Comparable SCs .....	0.17	289	39	40	367	61	20
<b>PDI Appeals</b>								
Freight Rail .....	SSEs .....	0.63	342	14	14	369	231	77
	SCs .....		6	0	0	7	4	1
FRSR .....	SCs .....		3	0	0	4	2	1
PTPR .....	SSEs .....		533	62	62	656	410	137
	SCs .....		2	0	0	2	1	0
OTRB .....	SCs .....		2	0	0	3	2	1
<b>PDI Waivers</b>								
Freight Rail .....	SCs .....	4.13	1.1	0.1	0.1	1	5	2
FRSS .....	SCs .....		0.6	0.0	0.0	1	3	1
PTPR .....	SCs .....		0.3	0.0	0.0	0	2	1
OTRB .....	SCs .....		0.4	0.0	0.1	0	2	1
<b>Recordkeeping</b>								
Freight Rail .....	SSEs .....	0.08	122,236	4,889	4,836	131,961	10,997	3,666
	SCs .....		897	44	44	984	82	27
FRSR .....	SCs .....		496	42	43	581	48	16
PTPR .....	SSEs .....		179,337	20,795	20,856	220,987	18,416	6,139
	SCs .....		230	30	31	292	24	8
OTRB .....	SCs .....		444	60	61	564	47	16
<b>Contact Information Updates</b>								
Freight Rail .....	SSEs .....	0.09	12,369	12,233	12,098	36,700	3,303	1,101
	SCs .....		91	92	92	275	25	8
FRSR .....	SCs .....		50	51	52	153	14	5
PTPR .....	SSEs .....		18,147	18,200	18,254	54,600	4,914	1,638
	SCs .....		23	24	24	71	6	2
OTRB .....	SCs .....		45	46	47	137	12	4
<b>STA Customer Satisfaction Survey</b>								
Freight Rail .....	SSEs .....	0.08	40,190	1,608	1,590	43,387	3,616	1,205
	SCs .....		156	8	8	171	14	5
FRSR .....	SCs .....		82	7	7	96	8	3
PTPR .....	SSEs .....		62,566	7,255	7,276	77,097	6,425	2,142
	SCs .....		42	6	6	54	4	1
OTRB .....	SCs .....		54	7	7	69	6	2
Total .....			741,985	91,331	91,278	924,594	544,035	181,345

Note: Totals may not be exact due to rounding in the table.

B. Economic Impact Analyses

1. Regulatory Impact Analysis Summary

Changes to Federal regulations must undergo several economic analyses. First, Executive Order (E.O.) 12866, Regulatory Planning and Review,<sup>63</sup> as supplemented by E.O. 13563, Improving Regulation and Regulatory Review,<sup>64</sup> directs each Federal agency to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (RFA)<sup>65</sup> requires agencies to

consider the economic impact of regulatory changes on small entities. Third, the Trade Agreement Act of 1979<sup>66</sup> prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. Fourth, the Unfunded Mandates Reform Act of 1995<sup>67</sup> (UMRA) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rulemakings that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation).

2. Executive Orders 12866 and 13563 Assessments

Under the requirements of E.O.s 12866 and 13563, agencies must assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). These requirements were supplemented by E.O. 13563, which emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

In accordance with E.O. 12866, TSA has submitted the proposal to the Office of Management and Budget (OMB), which has determined that this

<sup>63</sup> 58 FR 51735 (Oct. 4, 1993).

<sup>64</sup> 76 FR 3821 (Jan. 21, 2011).

<sup>65</sup> Public Law 96–354 (94 Stat. 1164; Sept. 19, 1980) (codified at 5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)).

<sup>66</sup> Public Law 96–39 (93 Stat. 144; July 26, 1979) (codified at 19 U.S.C. 2531–2533).

<sup>67</sup> Public Law 104–4 (109 Stat. 66; Mar. 22, 1995) (codified at 2 U.S.C. 1181–1538).

proposed rule is a significant regulatory action within the meaning of E.O. 12866, although not economically significant as the rule will not result in an effect on the economy of \$100 million or more in any year of the analysis.

In conducting these analyses:

1. TSA prepared an Initial Regulatory Flexibility Analysis (IRFA), which estimates that this rulemaking would likely have a regulatory cost that exceeds one percent of revenue for one small entity—one freight rail owner/operator—of the 372 small entities that TSA found would be impacted by the NPRM.

2. This rulemaking would not constitute a barrier to international trade.

3. This rulemaking is not likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation).

TSA has prepared an analysis of its estimated costs and benefits, summarized in the following paragraphs, and in the OMB Circular A-4 Accounting Statement. When estimating the cost of a rulemaking, agencies typically estimate future expected costs imposed by a regulation over a period of analysis. For this rulemaking's period of analysis, TSA uses a 10-year period of analysis to estimate the initial and recurring costs to the regulated surface mode owner/operators and new owner/operators that are expected due to industry growth. As discussed above, the 9/11 Act requires TSA to conduct the vetting we propose in this NPRM for security-sensitive workers of rail and public transportation workers. For security coordinators, the 9/11 Act requires TSA to ensure U.S. citizenship or conduct an appropriate STA in place of the citizenship requirement. For these workers, TSA is proposing a Level 3 STA rather than

U.S. citizenship. The 9/11 Act does not require a Level 3 STA for these workers, but gives TSA the discretion to determine which STA is appropriate. TSA is using that discretion to propose a Level 3 STA for security coordinators due to the access to security and personally identifiable information security coordinators have.

TSA summarizes the costs of the proposed rule to be borne by four types of parties: freight rail owner/operators, PTPR owner/operators, OTRB owner/operators, and TSA. As displayed in Table 13, TSA estimates the 10-year total cost of this proposed rule to be \$108.99 million undiscounted, \$98.08 million discounted at 3 percent, and \$86.58 million discounted at 7 percent. The costs to industry (all three surface modes) comprise approximately 98.3 percent of the total costs of the rule; and the remaining costs are incurred by TSA. See Table 13 below.

TABLE 13—TOTAL COST OF THE PROPOSED RULE BY ENTITY  
[\$ Thousands]

Year	Cost by regulated industry			Total regulated industries cost d = Σa,b,c	TSA cost e	Total proposed rule cost f = Σd,e		
	Freight rail a	PTPR b	OTRB c			Undiscounted	Discounted at 3%	Discounted at 7%
1	\$22,355	\$28,768	\$532	\$51,656	\$174	\$51,830	\$50,320	\$48,439
2	1,040	3,393	57	4,489	176	4,665	4,397	4,074
3	1,032	3,403	58	4,493	177	4,670	4,274	3,812
4	1,025	3,414	59	4,498	179	4,676	4,155	3,568
5	1,018	3,425	60	4,502	181	4,683	4,039	3,339
6	6,759	9,015	116	15,890	182	16,072	13,460	10,709
7	1,241	4,094	70	5,404	184	5,588	4,544	3,480
8	1,232	4,107	71	5,410	186	5,595	4,417	3,257
9	1,223	4,120	72	5,415	187	5,603	4,294	3,047
10	1,215	4,133	74	5,421	189	5,610	4,174	2,852
Total	38,139	67,871	1,168	107,178	1,814	108,993	98,075	86,578
Annualized							11,497	12,327

Note: Totals may not add due to rounding.

TSA estimates the 10-year costs to the freight railroad (including freight rail shippers and receivers) industry to be \$38.14 million undiscounted, \$34.90 million discounted at 3 percent, and \$31.43 million discounted at 7 percent, as displayed by cost categories in Table 14.<sup>68</sup>

TABLE 14—TOTAL COST OF THE PROPOSED RULE TO THE FREIGHT RAIL INDUSTRY  
[\$ Thousands]

Year	STA cost a	Redress process cost b	Repl. & unemploy. cost c	Recordkeeping cost d	Contact info update cost e	Mngt policies, familiar & compliance inspection cost f	Total freight rail cost g = Σa,b,c,d,e,f		
							Undisc.	Disc. at 3%	Disc. at 7%
1	\$19,449	\$551	\$419	\$393	\$56	\$1,487	\$22,355	\$21,704	\$20,893
2	782	22	17	16	55	148	1,040	980	908
3	774	22	17	16	55	149	1,032	945	843

<sup>68</sup> Costs include STA fees, time and travel burdens, redress procedures for applicable

individuals, employer replacement, hiring, and unemployment, recordkeeping, contact information

updates, employer management policies, regulation familiarization, and compliance inspections.



TABLE 14—TOTAL COST OF THE PROPOSED RULE TO THE FREIGHT RAIL INDUSTRY—Continued  
[\$ Thousands]

Year	STA cost	Redress process cost	Repl. & unemploy. cost	Recordkeeping cost	Contact info update cost	Mngt policies, familiar & compliance inspection cost	Total freight rail cost		
							g = Σa,b,c,d,e,f		
							Undisc.	Disc. at 3%	Disc. at 7%
	a	b	c	d	e	f			
4 .....	766	22	17	15	54	151	1,025	911	782
5 .....	757	22	17	15	53	152	1,018	878	726
6 .....	5,442	447	345	319	53	154	6,759	5,661	4,504
7 .....	930	39	37	27	52	156	1,241	1,009	773
8 .....	920	38	37	27	52	157	1,232	973	717
9 .....	911	38	38	27	51	159	1,223	937	665
10 .....	901	37	38	26	51	161	1,215	904	617
Total .....	31,632	1,237	983	881	532	2,874	38,139	34,900	31,427
Annualized .....								4,091	4,474

Note: Totals may not add due to rounding.

TSA estimates the 10-year costs to the PTPR industry to be \$67.87 million undiscounted, \$60.58 million discounted at 3 percent, and \$52.96 million discounted at 7 percent, as displayed by cost categories in Table 15.

TABLE 15—TOTAL COST OF THE PROPOSED RULE TO THE PTPR INDUSTRY  
[\$ Thousands]

Year	STA cost	Redress process cost	Repl. & unemploy. cost	Recordkeeping cost	Contact info update cost	Mngt policies, familiar & compliance inspection cost	Total cost		
							g = Σa,b,c,d,e,f		
							Undisc.	Disc. at 3%	Disc. at 7%
	a	b	c	d	e	f			
1 .....	\$26,987	\$749	\$74	\$583	\$64	\$311	\$28,768	\$27,930	\$26,886
2 .....	3,130	87	7	68	64	38	3,393	3,198	2,963
3 .....	3,139	87	7	68	64	38	3,403	3,115	2,778
4 .....	3,148	87	7	68	64	39	3,414	3,033	2,605
5 .....	3,158	88	7	68	65	39	3,425	2,954	2,442
6 .....	7,974	499	48	389	65	40	9,015	7,550	6,007
7 .....	3,734	136	13	106	65	40	4,094	3,329	2,550
8 .....	3,745	136	13	106	65	41	4,107	3,242	2,390
9 .....	3,756	137	13	106	65	42	4,120	3,157	2,241
10 .....	3,767	137	14	107	66	42	4,133	3,075	2,101
Total .....	62,538	2,144	205	1,668	647	669	67,871	60,584	52,963
Annualized .....								7,102	7,541

Note: Totals may not add due to rounding.

TSA estimates the 10-year costs to the OTRB industry to be \$1.17 million undiscounted, \$1.05 million discounted at 3 percent, and \$0.92 million discounted at 7 percent, as displayed by cost categories in Table 16.

TABLE 16—TOTAL COST OF THE PROPOSED RULE TO THE OTRB INDUSTRY  
[\$ Thousands]

Year	STA cost	Redress process cost	Repl. & unemploy. cost	Recordkeeping cost	Contact info update cost	Mngt policies, familiar & compliance inspection cost	Total cost		
							g = Σa,b,c,d,e,f		
							Undisc.	Disc. at 3%	Disc. at 7%
	a	b	c	d	e	f			
1 .....	\$46	\$3	\$76	\$1.0	\$0.3	\$405	\$532	\$517	\$497
2 .....	6	0	7	0.1	0.3	43	57	53	49
3 .....	6	0	7	0.1	0.3	43	58	53	47
4 .....	6	0	7	0.1	0.3	44	59	52	45
5 .....	7	0	7	0.1	0.3	45	60	52	43
6 .....	18	2	49	0.7	0.3	46	116	97	77
7 .....	8	1	13	0.2	0.3	47	70	57	43
8 .....	8	1	13	0.2	0.3	48	71	56	41

TABLE 16—TOTAL COST OF THE PROPOSED RULE TO THE OTRB INDUSTRY—Continued  
[\$ Thousands]

Year	STA cost	Redress process cost	Repl. & unemploy. cost	Recordkeeping cost	Contact info update cost	Mngt policies, familiar & compliance inspection cost	Total cost		
							g = Σa,b,c,d,e,f		
							Undisc.	Disc. at 3%	Disc. at 7%
	a	b	c	d	e	f			
9 .....	9	1	14	0.2	0.3	49	72	55	39
10 .....	9	1	14	0.2	0.3	50	74	55	37
Total .....	124	10	208	3.2	3.1	820	1,168	1,047	920
Annualized .....								123	131

Note: Totals may not add due to rounding.

TSA estimates the 10-year costs to be \$1.81 million undiscounted, \$1.54 million discounted at 3 percent, and \$1.27 million discounted at 7 percent, as displayed by cost categories in Table 17.

TABLE 17—TOTAL COST OF THE PROPOSED RULE TO TSA  
[\$ Thousands]

Year	Compliance inspection cost	TSA total cost (compliance inspection cost)		
		Undiscounted	Discounted at 3%	Discounted at 7%
1 .....	\$174	\$174	\$169	\$163
2 .....	176	176	166	153
3 .....	177	177	162	145
4 .....	179	179	159	136
5 .....	181	181	156	129
6 .....	182	182	153	121
7 .....	184	184	150	115
8 .....	186	186	147	108
9 .....	187	187	144	102
10 .....	189	189	141	96
Total .....	1,814	1,814	1,544	1,268
Annualized .....			181	181

The proposed rule would enhance surface transportation security by reducing vulnerability to attacks perpetrated by insiders. Specifically, the proposed rule would subject individuals that currently work, or that in the future will work (applicants), at covered entities to pass an STA, administered by TSA. The introduction of an STA requirement allows TSA to confirm the individual’s identity and determine from background information whether he or she poses or may pose a threat to transportation security or national security, or of terrorism. Absent the STA requirement, individuals who may pose a threat would continue to work in their respective positions. This is particularly relevant for individuals that perform the functions of a security coordinator or security-sensitive employee. Once an individual has completed the STA process and receives a favorable STA, they are then required to maintain a DOE during the entire span of their

tenure as a security-sensitive employee or a security coordinator. This will help ensure that only individuals that do not pose a threat will be eligible to continue their employment at covered entities while limiting those with an unfavorable STA from using their employment to carry out a nefarious act. Covered entities would also be required to maintain records on employee STAs and make them available to TSA upon request. This requirement increases the robustness of the program by encouraging covered entities to be in compliance with the requirements and providing a mechanism for TSA to assess that compliance. Higher levels of compliance increase the benefits associated with STAs by virtue of their increased use. While security vetting is not an absolute deterrent for terrorists intent on carrying out attacks on surface modes of transportation, TSA expects the probability of success for such attacks to decrease if security

coordinators and security-sensitive employees within these transportation modes are vetted under the proposed rule.

TSA uses a break-even analysis to frame the relationship between the potential benefits of the proposed rule and the costs of implementing the rule. When it is not possible to quantify or monetize a majority of the incremental benefits of a regulation, OMB recommends conducting a threshold, or “break-even” analysis. According to OMB Circular No. A–4, “Regulatory Analysis,” such an analysis answers the question “How small could the value of the non-qualified benefits be (or how large would the value of the non-quantified costs need to be) before the rule would yield zero net benefits?”<sup>69</sup> To conduct the break-even analysis,

<sup>69</sup> OMB, “Circular A–4: Regulatory Analysis”, Section B. The Need for Federal Regulatory Action. September 17, 2003. pg. 2.

TSA evaluates composite scenarios for each of the three modes covered by the proposed rule. For each mode, the composite scenario represents the potential monetized losses associated with the deaths, injuries, as well as

property damage and remediation caused by a terrorist attack on the corresponding transportation mode. TSA estimates a total monetary consequence from an estimated statistical value of the human casualties

and capital replacement resulting from the attack.<sup>70</sup>

Table 18 presents the composite or weighted average of direct consequences from an attack executed on each mode.

**TABLE 18. WEIGHTED AVERAGE COSTS FROM DIRECT CONSEQUENCE OF COMPOSITE SCENARIOS<sup>71</sup>**

Variables		Transportation Mode		
		Freight Rail	PTPR	OTRBs
Weighted Average Values	Number of Deaths	29.41	36.22	2.51
	Number of Severe Injuries (non-chemical)	39.77	43.69	2.51
	Number of Moderate Injuries (non-chemical)	34.07	49.60	1.65
	Number of Chemical Severe Injuries	42.30	0.00	0.00
	Number of Chemical Moderate Injuries	80.21	0.00	0.00
	Monetized Public Infrastructure Loss (\$ millions)	\$11.41	\$5.32	\$0.17
	Monetized Private Property Loss (\$ millions)	\$18.43	\$0.10	\$0.31
	Monetized Rescue and Cleanup (\$ millions)	\$74.81	\$0.70	\$1.58
<b>Total Monetized Direct Consequences<sup>72</sup> (\$ millions)</b>		<b>\$589.30</b>	<b>\$588.15</b>	<b>\$39.77</b>

Note: Totals may not add due to rounding.

TSA compared the estimated direct monetary costs from an attack to the annualized cost (discounted at 7 percent) to industry and TSA from the proposed rule for each mode to estimate how often an attack of that nature would need to be averted for the expected

benefits to equal estimated costs. Table 19 presents the results of the break-even analysis for each mode.<sup>73</sup> For example, Table 19 shows that if the freight rail vetting requirements in this rule prevents one freight rail terrorist attack every 129 years,<sup>74</sup> the freight rail

provisions of this rule “break-even” (the benefits equal the costs). These breakeven frequencies are once every 129 years for freight rail, once every 78 years for PTPR, and once every 238 years for OTRB.

**TABLE 19—BREAK-EVEN RESULTS**  
[\$ Thousands]

Modes	Weighted average direct costs of an attack a	Annualized cost of the proposed rule b	Break-even averted attack frequency c = a ÷ b
Freight Rail .....	\$589,298	\$4,572	Once every 129 years.
PTPR .....	588,148	7,587	Once every 78 years.
OTRB .....	39,771	167	Once every 238 years.

In the break-even analysis, TSA only considers the estimated direct costs: direct economic losses of the attack scenarios that would be averted as a result of the proposed rule. The break-even analysis does not include the difficult-to-quantify indirect costs of an attack or the macroeconomic impacts

that could occur due to a major attack. In addition to the direct impacts of a terrorist attack in terms of lost life and property, there are other more indirect impacts that are difficult to measure. As noted by Cass Sunstein in *Laws of Fear*, “. . . fear is a real social cost, and it is likely to lead to other social costs.” In

addition, Ackerman and Heinzerling state “. . . terrorism ‘works’ through the fear and demoralization caused by uncontrollable uncertainty.” As devastating as the direct impacts of a successful terrorist attack can be in terms of the immediate loss of life and property, avoiding the impacts of the

<sup>70</sup> See Section 4.4 of the TSA Security Vetting of Certain Surface Transportation Workers Preliminary Regulatory Impact Analysis (RIA) for a more detailed description of these calculations; however, many assumptions regarding specific terrorist attacks scenarios are Sensitive Security Information (SSI) and cannot be publicly released.

<sup>71</sup> As explained in the RIA in the docket, to monetize injuries, TSA used two approaches (depending on whether the injury was due to

exposure to hazardous chemicals). To monetize “non-chemical” injuries, TSA uses guidance from the Department of Transportation for valuing injuries based on the Abbreviated Injury Scale. To monetize chemical-related injuries, TSA obtained information on the cost of medical treatment for poisoning injuries.

<sup>72</sup> Total Direct Consequences = (Deaths × \$11.6 million VSL) + (Severe injuries × \$3.085 million) + (Moderate injuries × \$0.545 million) + (Severe

chemical injuries × \$49,769) + (Moderate chemical injuries × \$1.715) + Public property loss + Private property loss + Rescue and clean-up cost.

<sup>73</sup> The total cost for each mode includes the TSA costs associated with it.

<sup>74</sup> TSA divided the total direct consequences of each composite scenario by the annualized cost for its respective mode to estimate the frequency of terrorist attacks the proposed rule would need to avert for its costs to equal its benefits.

more difficult to measure indirect effects are also substantial benefits of preventing a terrorist attack. Because the analysis only accounts for a portion of the full impacts of the terrorist attack scenarios, it is likely that the costs

associated with the attack scenarios, and therefore the cost savings or benefits from vetting security-sensitive employees, are underestimated in this analysis.

3. OMB A-4 Statement

The OMB A-4 Accounting Statement presents annualized costs and qualitative benefits of the proposed rule.

TABLE 20—OMB A-4 ACCOUNTING STATEMENT  
[\$ Millions]

Category	Estimates			Units			Notes
	Primary	Low	High	Year dollar	Discount rate (%)	Period covered (years)	
<b>Benefits</b>							
Annualized Monetized (\$ millions/year) .....	N/A	N/A	N/A	N/A	7	N/A	Not Quantified.
	N/A	N/A	N/A	N/A	3	N/A	
Annualized Quantified .....	N/A	N/A	N/A	N/A	7	N/A	Not Quantified.
	N/A	N/A	N/A	N/A	3	N/A	
Qualitative .....	The requirements proposed in this rule, if finalized, would produce benefits by reducing security risks through STAs of security-sensitive employees and security coordinators of affected surface transportation modes to identify and/or mitigate potential insider threats.						
<b>Costs</b>							
Annualized Monetized (\$ millions/year) .....	\$12.33	N/A	N/A	2020	7	10	NPRM RIA.
	\$11.50	N/A	N/A	2020	3	10	
Annualized Quantified .....	N/A	N/A	N/A	N/A	7	N/A	Not Quantified.
	N/A	N/A	N/A	N/A	3	N/A	
Qualitative .....	Not estimated						
<b>Transfers</b>							
Annualized Monetized Transfers: Employer compensation transfers (\$ millions/year).	\$0.10	N/A	N/A	2020	7	N/A	NPRM RIA.
	\$0.10	N/A	N/A	2020	3	N/A	
From/To:	From:		Displaced Employees		To:		Replacement Labor.
Annualized Monetized Transfers: Unemployment transfer payment to employees (\$ millions/year).	\$0.02	N/A	N/A	2020	7	N/A	NPRM RIA.
	\$0.01	N/A	N/A	2020	3	N/A	
From/To:	From:		States		To:		Displaced Employees.
Annualized Monetized Transfers: A reduction in employment taxes transfer payments (\$ millions/year).	\$0.01	N/A	N/A	2020	7	N/A	NPRM RIA.
	\$0.01	N/A	N/A	2020	3	N/A	
From/To:	From:		Employees and Displaced Employees		To:		Federal Government.
<b>Effects</b>							
State, Local, and/or Tribal Government .....	None						NPRM IRFA.
Small Business .....	Prepared IRFA						
Wages .....	None						
Growth .....	Not measured						

4. Alternatives Considered

In addition to the proposed rule, TSA also considered three alternative regulatory options. The first alternative (Alternative 1) requires OTRB security-sensitive employees to undergo a Level-2 STA. Compared to the proposed rule, Alternative 1 would increase the total number of STAs performed, but align the OTRB industry with the requirements placed upon freight rail and PTPR. Unlike freight rail and PTPR, there is no statutory requirement in the 9/11 Act to perform STAs on OTRB

security-sensitive employees.<sup>75</sup> TSA carefully considered making Alternative 1 the preferred alternative for this NPRM to ensure security-sensitive employees across all three modes undergo an STA, but ultimately decided to first seek public comment on the applicability used in Alternative 1 that would require OTRB security-sensitive employees to undergo a Level-2 STA, and whether that applicability should

<sup>75</sup> Note that TSA has broad authority to establish security requirements, including STAs for individuals with access to the transportation system, under 49 U.S.C. 114.

be the preferred alternative in the final rule.

The second alternative (Alternative 2) represents a lower-cost alternative that adjusts certain regulatory requirements while complying with the text and purpose of the 9/11 Act. Specifically, Alternative 2 would remove the proposed rule's vetting requirement for freight rail and OTRB owner/operator security coordinators with U.S. citizenship, as well as the vetting requirements for freight rail shippers and receivers (FRSR) and PTPR security coordinators. The 9/11 Act mainly

requires a “name-based security background check against the consolidated terrorist watchlist and an immigration check” for frontline public transportation employees<sup>76</sup> and frontline railroad employees.<sup>77 78</sup> The 9/11 Act also requires an “individual serving as the security coordinator” for freight rail and OTRBs to be “a citizen of the United States,” except if TSA waives this requirement after an appropriate background check of the individual.<sup>79 80</sup> Therefore, under Alternative 2 security coordinators with U.S. citizenship would not need to undergo an STA.<sup>81</sup> A Level 3 STA would be required only of a freight rail and OTRB security coordinator who is not a citizen of the United States. For those who are vetted under this Alternative, TSA retains the proposed rule requirements necessary to sustain the benefits of TSA’s vetting program including: (1) the 5-year renewal cycle; (2) recurrent vetting; (3) STA recordkeeping; (4) contact information updates; and (5) compliance inspections. Compared to the proposed rule, the total number of affected entities would decrease under

Alternative 2, as FRSR entities and non-high-risk PTPR agencies would not be impacted by this alternative. The number of OTRB owner/operators affected by Alternative 2 would not change relative to the proposed rule; however, the number of security coordinators affected would decrease as only non-US citizens would be required to be vetted. By restricting the population of affected employees, Alternative 2 would reduce the number of STAs performed and would likely limit TSA’s ability to identify higher-risk individuals seeking access to the transportation infrastructure.

Under Alternative 3, TSA would offer the option for entities affected by the proposed rule to provide STA enrollment services by allowing them to train security coordinators who have successfully completed a Level 3 STA to serve as “trusted agents” and perform the enrollment process for security-sensitive employees. Under this alternative, owner/operators would train trusted agents to ensure that they adhere to minimum enrollment standards for protecting the privacy of information, accurately collecting biometric and

biographic information, performing identity verification, collecting and processing TSA’s fees correctly, and sending the enrollment data to TSA. While this alternative would have the advantage of potentially increasing the availability of enrollment locations for STA applicants, it would have the disadvantage of increasing costs for affected owner/operators as they would have to establish and maintain appropriate on-site enrollment capabilities and costly electronic infrastructure to securely connect with TSA’s systems. This alternative would increase costs for TSA to ensure each entity met information technology and legal standards and requirements to conduct their own enrollments. Moreover, under this alternative, TSA would have less control over the vetting process and enforcement compliance, which may adversely affect the vetting process and leave the surface transportation infrastructure more vulnerable to an insider threat.

Table 21 presents a comparison of the costs between the proposed rule and the alternatives considered.

**TABLE 21—COMPARISON OF COSTS BETWEEN PROPOSED RULE AND ALTERNATIVES**  
[Discounted at 7%, \$ thousands]

Alternative	Initial affected population (number of entities)	Requirements	10-Year costs		
			Industry	TSA	Total
			a	b	c = Σa,b
Proposed Rule .....	631 Freight Rail Entities, <sup>82</sup> 115 PTPR Agencies, <sup>83</sup> 222 OTRB Owner/Operators.	(1) Require high-risk freight railroad and PTPR security-sensitive employees to undergo Level 2 STA; (2) Require security coordinators to undergo Level 3 STA; (3) Maintain employees’ STA records; (4) Update contact information; (5) Allow TSA to perform onsite inspections; (6) Use the redress provisions if affected by the proposed STAs.	\$85,310	\$1,268	\$86,578
Alternative 1 .....	Affected population of entities is the same as the Proposed Rule.	(1) Require security-sensitive employees, including OTRB, to undergo Level-2 STA; (2) Require security coordinators to undergo Level 3 STA; (3) Maintain employees’ STA records; (4) Update contact information, (5) Allow TSA to perform onsite inspections; (6) Use of redress provisions if found ineligible.	100,938	1,619	102,557
Alternative 2 .....	457 Freight Rail Entities, 48 PTPR Agencies, 222 OTRB Owner/Operators.	(1) Require high-risk freight railroad and PTPR security-sensitive employees to undergo Level 2 STA; (2) Require freight rail and OTRB security coordinators without U.S. citizenship to undergo Level 3 STA; (3) Maintain employees’ STA records; (4) Update contact information, (5) Allow TSA to perform onsite inspections; (6) Use the redress provisions if affected by the proposed STAs..	82,951	1,187	84,138

<sup>76</sup> See sec. 1411, the 9/11 Commission Act, Public Law 110–53, (121 Stat. 266, Aug. 3, 2007); codified at 6 U.S.C. 1140.

<sup>77</sup> See sec. 1520 of the 9/11 Act.

<sup>78</sup> As discussed in greater detail in the preamble of this NPRM, TSA uses “security-sensitive” in place of “frontline” employee, to mirror the terminology changes made in the Surface Training rulemaking.

<sup>79</sup> See sec. 1512, codified at 6 U.S.C. 1162 (freight rail); sec. 1531, codified at 6 U.S.C. 1181 (OTRB).

<sup>80</sup> As discussed in the NPRM the 9/11 Act does not require a specific type of background check that would take the place of requiring U.S. citizenship. TSA proposes to require OTRB security coordinators to undergo a Level 3 STA, due to the access to security and privacy information security coordinators have, and consistent with other TSA vetting programs.

<sup>81</sup> TSA requires these additional requirements in the proposed rule based on its broad authority under 49 U.S.C. 114 (f)(12) with regard to

transportation security vetting, and TSA also believes that a higher level of vetting for security coordinators is justified because security coordinators have particularly sensitive and important security-related functions.

<sup>82</sup> This estimate consists of 457 Class I, II, and III freight railroads and 174 freight shippers and receivers.

<sup>83</sup> This estimate consists of 23 bus-only PTPR agencies and 92 rail PTPR agencies (including Amtrak).

TABLE 21—COMPARISON OF COSTS BETWEEN PROPOSED RULE AND ALTERNATIVES—Continued  
[Discounted at 7%, \$ thousands]

Alternative	Initial affected population (number of entities)	Requirements	10-Year costs		
			Industry	TSA	Total
			a	b	c = Σa,b
Alternative 3 .....	Affected population of entities is the same as the Proposed Rule.	(1) Allow covered entities to train and use vetted security coordinators to serve as trusted agents (2) Require freight railroad and PTPR security-sensitive employees to undergo Level 2 STA; (3) Require security coordinators to undergo Level 3 STA; (4) Maintain employees' STA records; (5) Update contact information; (6) Allow TSA to perform onsite inspections; (7) Use the redress provisions if affected by the proposed STAs.	72,690	45,571	118,261

Although not the least costly option, TSA presents the proposed rule as its preferred option. TSA did not select Alternative 1, which includes STA requirements for OTRB security-sensitive employees, because it first wants to solicit public comment on requiring more than is explicitly required in the 9/11 Act for the OTRB security-sensitive population. The regulatory impact analysis for this proposed rule provides details on the cost estimates for OTRB employees impacted by this alternative.

It is TSA's belief that the proposed rule would mitigate potential insider threats more effectively than Alternative 2 because it proposes a more stringent level of vetting for security coordinators, given their unique roles and critical responsibilities. By removing the STA requirements for security coordinators, Alternative 2 would leave a critical population that has particularly sensitive and important security functions without any STA, which would lead to surface transportation modes that are more vulnerable to insider threat. As a result, despite the lower cost of Alternative 2, TSA believes the additional security in the proposed rule outweighs its additional costs.

Even though Alternative 3 may provide more flexibility, it includes additional entity and TSA costs to establish and maintain appropriate enrollment capabilities. Based on experience with another vetting program that allowed for non-TSA enrollment STAs, TSA estimated the potential costs to establish and maintain appropriate enrollment capabilities. The RIA includes a description of the costs of this alternative, including costs to the regulated entities and TSA. As described in the RIA, Alternative 3 would cost approximately \$31.68 million over the proposed rule costs for the 10-year analysis period. TSA also strongly prefers to maintain in-house, high-quality, and consistent identity

verification and application processing, which would not be available if Alternative 3 was selected. In contrast, the proposed rule would enable the use of TSA enrollment centers where TSA personnel would be directly involved in the STA process from the time the applicant is accurately identified through the closing of the applicant's case.

TSA did not consider as an alternative to the requirements in the proposed rule the adoption of any regulatory regimes that would not meaningfully realize the security benefits that Congress intended in the 9/11 Act and that in TSA's view are warranted. For instance, TSA is aware that one might arguably interpret the 9/11 Act so narrowly as to require only (1) a one-time, name-based security background check against the consolidated terrorist watchlist and an immigration check for freight railroad<sup>84</sup> and public transportation frontline employees<sup>85</sup> similar to the threat assessment screening program required for maritime facility employees and longshoreman;<sup>86</sup> (2) an adequate redress process for covered individuals subjected to an adverse employment decision and have the authority to order an appropriate remedy; and (3) that individuals serving as a security coordinators for freight railroads<sup>87</sup> and OTRB operator<sup>88</sup> be citizens of the United States or undergo a background check.

Such a proposal would create a security gap, not reflect current vetting standards and capabilities, and not

<sup>84</sup> Implementing Recommendations of the 9/11 Commission Act of 2007, Public Law 110–53, sec. 1520 (Aug. 3, 2007).

<sup>85</sup> Implementing Recommendations of the 9/11 Commission Act of 2007, sec. 1411 (Aug. 3, 2007); codified at 6 U.S.C. 1140.

<sup>86</sup> Coast Guard Notice USCG–2006–24189, 71 FR 25066 (Apr. 8, 2006).

<sup>87</sup> Implementing Recommendations of the 9/11 Commission Act of 2007, Public Law 110–53, sec. 1512 (Aug. 3, 2007).

<sup>88</sup> Implementing Recommendations of the 9/11 Commission Act of 2007, Public Law 110–53, sec. 1531 (Aug. 3, 2007).

provide sufficient means to accurately and efficiently administer the program. Therefore, TSA did not include this approach as a reasonable alternative. Nonetheless, TSA estimates the costs associated with it to freight rail, PTPR, and OTRB industries and TSA, over 10 years, as \$86.96 million undiscounted, \$79.62 million discounted at 3 percent, and \$71.80 million discounted at 7 percent.<sup>89</sup> The cost estimate includes: a one-time vet, accounting for growth and turnover, of high-risk freight rail and PTPR frontline employees; a one-time vet, accounting for growth and turnover, of freight rail and OTRB security coordinators without U.S. citizenship; redress process cost; disqualification, replacement, and lost productivity costs to owner/operators for individuals with unfavorable STAs; familiarization costs to familiarize owner/operators with the requirements of the rulemaking; and new management policies and other related administrative task costs associated with adopting the rule.

5. Regulatory Flexibility Assessment

The Regulatory Flexibility Act (RFA) of 1980 requires agencies to consider the impacts of their rules on small entities. TSA performed an Initial Regulatory Flexibility Analysis (IRFA) to analyze the impact to small entities affected by the proposed rule. See the RIA in the docket for the full IRFA. A summary of the RFA is below.

Under the RFA, the term “small entities” comprises small businesses, not-for-profit organizations that are independently owned, operated, and not dominant in their fields,<sup>90</sup> as well as

<sup>89</sup> The cost of such an exceedingly narrow potential implementation of the 9/11 Act could be further reduced for industry if TSA allowed covered entities to conduct vetting as trusted agents, similar to Alternative 3. However, while the cost to industry would decrease under this approach, the overall cost of this approach would increase because introducing trusted agents and private IT systems to the vetting process would result in additional costs for TSA to stand-up the program.

<sup>90</sup> The definition of a small business varies from industry to industry to properly reflect the relative

small governmental jurisdictions with populations of less than 50,000.<sup>91</sup> TSA performed an IRFA of the impacts on small entities from this proposed rule in the first year of the analysis and found that it may affect an estimated 968 U.S. entities (457 corporate-level Class I, II, and III freight railroads, 174 corporate-level freight shippers and receivers, 115 PTPR agencies, and 222 OTRB owner/operators). Using a random sample, TSA found that 59 percent of them would be considered small.

The proposed rule would require small entities to vet their affected security-sensitive employees (except for OTRB owner/operators) and security coordinators using STAs, maintain

vetting records, update employee contact information when applicable, and familiarize themselves with the proposed rule, in addition to allowing TSA personnel onsite for inspections. A small number of owner/operators may incur a cost to dismiss an employee as a result of negative DOE.

To perform the freight rail IRFA assessment, TSA randomly sampled 242 Class I, II, and III freight railroads and 156 freight shippers and receivers, that would be affected by this proposed rule. TSA uses the SBA size standards to identify that 167 freight rail owner/operators (of the 242) and 90 freight shippers and receivers (of the 156) affected by the final rule are considered

a small business. TSA estimates that the proposed rule's requirements would cost small freight railroads an average of \$168 per security-sensitive employee (for railroads requirements only) and \$2,942 per entity for non-high-risk freight entities and \$3,888 per entity for high-risk freight entities.<sup>92</sup> TSA estimates that the first-year cost of the proposed rule would have an impact of less than 1 percent of revenue for 143 of all 147 small freight rail entities, or 97 percent. This result is based on the assumption that there would be no disqualified employees from security vetting. Table 22 presents the likely distribution of impact for small freight rail owner/operators.

TABLE 22—NUMBER OF AFFECTED SMALL CLASS II AND III FREIGHT RAILROAD ENTITIES BY REVENUE IMPACT

Revenue impact range	Number of affected small entities	Percentage of affected small entities
0% < Impact ≤ 1% .....	143	97
1% < Impact ≤ 3% .....	4	3
3% < Impact ≤ 5% .....	0	0
5% < Impact ≤ 10% .....	0	0
Above 10% .....	0	0
<b>Total .....</b>	<b>147</b>	<b>100</b>

If a freight rail entity had a disqualified security-sensitive employee or security coordinator, TSA estimates the entity would incur a replacement and lost productivity cost of \$35,667 or \$67,021, respectively.<sup>93</sup> TSA also performed the a stress test to see if there would be a significant impact to small freight rail entities if TSA assumes one security coordinator would be

disqualified at a cost of \$67,021, which was added to each entity's first year cost. TSA found that under this scenario, 90 small entities, or 62 percent of all 147 small freight rail entities in the sample, would have an impact greater than 1 percent of revenue.<sup>94</sup>

For small freight rail shippers and receivers, TSA estimated a first year cost of \$2,472 per entity.<sup>95</sup> TSA estimates

that the first-year cost of the proposed rule would have an impact of less than 1 percent of revenue for 77 of the 80 entities in the sample. Table 23 presents the likely distribution of impact for small freight rail shipper and receiver entities.

TABLE 23—NUMBER OF AFFECTED SMALL FREIGHT SHIPPER AND RECEIVER ENTITIES BY REVENUE IMPACT

Revenue impact range	Number of affected small entities	Percentage of affected small entities
0% < Impact ≤ 1% .....	77	96
1% < Impact ≤ 3% .....	3	4
3% < Impact ≤ 5% .....	0	0
5% < Impact ≤ 10% .....	0	0

differences in size between industries. An agency must either use the U.S. Small Business Administration (SBA) definition for a small business or establish an alternative definition for the industry. TSA has adopted the SBA small business size standards for each relevant industry.

<sup>91</sup> Individuals and States are not considered "small entities" based on the definitions in the RFA (5 U.S.C. 601).

<sup>92</sup> First year costs include STA costs such as travel, wait and enrollment time, travel costs, and STA fees. The STA costs are not required to be paid specifically by the entity, and these costs could be incurred by the individual enrolling in the STA. To err on the side that makes the potential costs to small entities higher, TSA assumed the STA cost would be covered by the employer. Other first year costs include recordkeeping and contact information updates per STA, as well as the cost of

familiarization with the proposed rule and inspection compliance, all of which would be paid by each entity. Per entity costs include costs for security coordinator STAs per entity.

<sup>93</sup> Because disqualifications based on a terrorism check are rare, TSA does not account for them in the IRFA. In addition, as discussed in Section 2.6 of the RIA, TSA does not account for the replacement costs of employees deemed ineligible based on an immigration check because those are not considered costs of this proposed rule, but rather costs of the immigration laws. Therefore, TSA does not estimate replacement costs for security-sensitive employees who would be required to undergo the terrorism and immigration checks in their Level-2 STA.

<sup>94</sup> Thirty-six freight railroad small entities would have an impact between 1 and 3 percent of revenue, 19 small entities would have an impact between 3

and 5 percent of revenue, 16 small entities would have an impact between 5 and 10 percent of revenue, and 16 small entities would have an impact over 10 percent of revenue.

<sup>95</sup> First year costs include security coordinator STA costs, such as travel, wait and enrollment time, travel costs, and STA fees. TSA does not require the owner/operator to pay the STA fees (although some may do so) and these costs could be incurred by the individual enrolling in the STA. For a conservative assessment of potential small entity costs, TSA included the STA cost for entities. Other first year costs include recordkeeping and contact information updates per STA, as well as familiarization with the proposed rule and inspections per entity.

TABLE 23—NUMBER OF AFFECTED SMALL FREIGHT SHIPPER AND RECEIVER ENTITIES BY REVENUE IMPACT—Continued

Revenue impact range	Number of affected small entities	Percentage of affected small entities
Above 10% .....	0	0
Total .....	80	100

If a freight rail shipper and receiver entity had a disqualified security coordinator, TSA estimates the entity would incur a replacement and lost productivity cost of \$55,416.<sup>96</sup> TSA also performed a stress test to see if there would be a significant impact to freight rail shippers and receivers small entities if TSA assumes one security coordinator would be disqualified at a cost of \$55,416, which was added to each entity’s first year cost. TSA found based on a stress test of one security

coordinator disqualification, 27 small entities, or 34 percent of all 80 small freight shipper and receivers in the sample would have an impact greater than 1 percent of revenue.<sup>97</sup>

For the PTPR industry, TSA randomly sampled 100 agencies. Using SBA size standards, TSA identifies four of the 100 PTPR agencies regulated under the proposed rule as small entities.<sup>98</sup> TSA estimates that the proposed rule’s requirements would cost small PTPR agencies \$154 per security-sensitive employee, and \$2,827 per entity for

non-high-risk-PTPR agencies and \$3,733 per entity for high-risk-PTPR agencies.<sup>99</sup> TSA estimated that the first-year cost of the proposed rule would have an impact of less than 1 percent of revenue for three small PTPR owner/operators or 100 percent of the sample of entities with information available. This result is based on the assumption that there would be no disqualified employees from security vetting. Table 24 presents the likely distribution of impact for small PTPR agencies.

TABLE 24—NUMBER OF AFFECTED SMALL PTPR AGENCIES BY REVENUE IMPACT

Revenue impact range	Number of affected small entities	Percentage of affected small entities
0% < Impact ≤ 1% .....	3	100
1% < Impact ≤ 3% .....	0	0
3% < Impact ≤ 5% .....	0	0
5% < Impact ≤ 10% .....	0	0
Above 10% .....	0	0
Total .....	3	100

If a PTPR entity had a disqualified security-sensitive employee or security coordinator, TSA estimates the entity would incur a replacement cost of \$26,628 or \$60,395, respectively. TSA performed a stress test to see if there would be any significant impact to small PTPR entities if TSA assumes one security coordinator would be disqualified at a cost of \$60,395, which was added to each entity’s first year cost. TSA found that under this stress-

test scenario, two small entities of all three small PTPR agencies in the sample, would have an impact greater than 1 percent of revenue.<sup>100</sup>

For the OTRB industry, TSA randomly sampled 130 owners/operators. Likewise, TSA estimates—using SBA size standards—111 OTRB owner/operators affected by the proposed rule to be small entities or 85 percent. TSA estimates that the proposed rule’s requirements would

cost small OTRB entities \$2,275 per entity.<sup>101</sup> TSA estimated that the first-year cost of the proposed rule would have an impact of less than 1 percent of revenue for 98 percent of the 93 small OTRB sample entities. This result is based on the assumption that there would be no disqualified employees from security vetting. Table 25 presents the likely distribution of impact for small OTRB owner/operators.

<sup>96</sup> Because disqualifications based on a terrorism check are rare, TSA does not account for them in the IRFA. In addition, as discussed in Section 2.6 of the RIA, TSA does not account for the replacement costs of employees deemed ineligible based on an immigration check because those are not considered costs of this proposed rule, but rather costs of the immigration laws. Therefore, TSA does not estimate replacement costs for security-sensitive employees who would be required to undergo the terrorism and immigration checks in their Level-2 STA.

<sup>97</sup> Fourteen freight rail shipper and receiver small entities would have an impact between 1 and 3 percent of revenue, four small entities would have an impact between 3 and 5 percent of revenue, four small entities would have an impact between 5 and 10 percent, and five small entities would have an impact greater than 10 percent. The additional 10

entities that did not have data were assumed to be small and TSA did not specifically assess revenue impacts for these entities.

<sup>98</sup> While four of these PTPR agencies are considered to be small entities, one is assumed to be a small entity due to the unavailability of data.

<sup>99</sup> First year costs include STA costs, such as travel, wait and enrollment time, travel costs, and STA fees. TSA does not require the owner/operator to pay the STA fees (although some may do so) and these costs could be incurred by the individual enrolling in the STA. To err on the side that makes the potential costs to small entities higher, TSA assumed the STA cost would be covered by the employer. Other first year costs include recordkeeping and contact information updates per STA, as well as the cost of familiarization with the rule and inspection compliance, all of which would be paid by each entity.

<sup>100</sup> TSA found two PTPR small entities would have an impact between 1 and 3 percent of revenue, and assumed the one entity that did not have data would also have an impact of over one percent in this scenario.

<sup>101</sup> First year costs include security coordinator STA costs, such as travel, wait and enrollment time, travel costs, and STA fees. TSA does not require the owner/operator to pay the STA fees (although some may do so) and these costs could be incurred by the individual enrolling in the STA. To err on the side that makes the potential costs to small entities higher, TSA assumed the STA cost would be covered by the employer. Other first year costs include recordkeeping and contact information updates per STA, as well as the cost of familiarization with the proposed rule and inspection compliance, all of which would be paid by each entity.



TABLE 25—NUMBER OF AFFECTED SMALL OTRB OWNER/OPERATORS BY REVENUE IMPACT

Revenue impact range	Number of affected small entities	Percentage of affected small entities
0% < Impact ≤ 1% .....	91	98
1% < Impact ≤ 3% .....	2	2
3% < Impact ≤ 5% .....	0	0
5% < Impact ≤ 10% .....	0	0
Above 10% .....	0	0
Total .....	93	100

If an OTRB entity had a security coordinator disqualified as a result of the STA, TSA estimates the entity would incur a replacement cost of \$21,880. TSA performed a stress test to see if there would be a significant impact on small OTRB entities if TSA assumed a replacement cost of \$21,880, which was added to each entity's first year cost. TSA found that under this stress-test scenario 77 small entities, or 83 percent of all 93 small OTRB owner/operators, would have an impact greater than 1 percent of revenue.<sup>102</sup>

A Description of the Projected Reporting, Record Keeping, and Other Compliance Requirements of the Proposed Rule, Including an Estimate of the Classes of Small Entities That Would be Subject to the Requirements and the Type of Professional Skills Necessary for Preparation of the Report or Record

Under the provisions of the proposed rule, the regulated populations would incur costs associated with maintaining a system of recordkeeping that verifies completion of STAs. TSA assumes the recordkeeping requirements of the proposed rule would be performed by employees with administrative and clinical skills, and bases its cost estimate on administrative compensation rates.

An Identification, to the Extent Practicable, of All Relevant Federal Rules Which May Duplicate, Overlap, or Conflict with the Proposed Rule

TSA is aware that other federal agencies conduct regulatory vetting programs that may affect individuals who are covered by the vetting programs in this proposed rule. The design of this proposed rule is to achieve comparability amongst TSA vetting programs and similar vetting done by

<sup>102</sup> Based on OTRB small entities with available data, 29 small entities would have an impact between 1 and 3 percent of revenue, nine small entities would have an impact between 3 and 5 percent of revenue, 10 small entities would have an impact between 5 and 10 percent, and 29 small entities would have an impact greater than 10 percent.

other federal agencies when possible, thereby avoiding duplication and overlap.<sup>103</sup> In addition, to the extent there are duplicative vetting requirements of which TSA is currently unaware, the proposed rule indicates a procedure for requesting comparability determination from TSA.<sup>104</sup>

A Description of Any Significant Alternatives to the Proposed Rule That Accomplish the Stated Objectives of Applicable Statutes and May Minimize Any Significant Economic Impact of the Proposed Rule on Small Entities, Including Alternatives Considered

TSA considered Alternative 1 of great interest as a regulatory alternative, as it would add the requirement for the vetting of OTRB security-sensitive employees and, hence, create a more standard set of vetting requirements across the proposed rule's three surface modes, which is consistent with the agency's risk-based security policies. Therefore, TSA asks for public comments on the IRFA for this alternative, given this is a preferred option, which not only increases the number of security-sensitive employees who would undergo a Level 2 STA, but also increases the cost to OTRB owner/operators.

TSA increased the cost of the proposed rule to each of the 93 sampled small OTRB entities with complete information to include the Level 2 STAs on OTRB security-sensitive employees, with a cost of \$186 per security-sensitive employee. TSA estimated that the first-year cost of this regulatory option would have an impact of less than 1 percent of revenue for 56 of the 93 small OTRB entities, or 63 percent. TSA also performed a stress test to see if there would be any additional significant impact to small OTRB entities if TSA assumed one security coordinator would be disqualified per entity, at a cost of \$50,540, which was added to each entity's first year cost. TSA found that subjecting Alternative 1 to this stress-test scenario results in 80

<sup>103</sup> See § 1530.509.

<sup>104</sup> See § 1524.515(e) and § 1524.515(f).

small entities, or 90 percent of owner/operators, with revenue impacts that exceed 1 percent of revenue.<sup>105</sup>

#### 6. International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. The Trade Agreement Act does not consider legitimate domestic objectives, such as essential security, as unnecessary obstacles. The statute also requires that international standards be considered and, where appropriate, that they be the basis for U.S. standards. TSA has assessed the potential effect of this proposed rule and has determined this rulemaking would not have an adverse impact on international trade.

#### 7. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under sec. 202 of the UMRA, TSA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments in the aggregate or by the private sector of \$100 million (adjusted for inflation) or more in any one year. Before TSA promulgates a rule for which a written statement is required, sec. 205 of the UMRA generally requires TSA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves

<sup>105</sup> Of the 93 small OTRB owner/operators with available data, 25 small entities would have an impact between 1 and 3 percent of revenue, eight small entities would have an impact between 3 and 5 percent of revenue, 15 small entities would have an impact between 5 and 10 percent, and 14 small entities would have an impact greater than 10 percent.

the objectives of the rule. The provisions of sec. 205 do not apply when they are inconsistent with applicable law. Moreover, sec. 205 allows TSA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before TSA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must develop under sec. 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of TSA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

When adjusted for inflation, the threshold for expenditures becomes \$158.1 million in 2020 dollars. TSA has determined that this proposed rule does not contain a Federal mandate that may result in expenditures that exceed that amount either for State, local, and tribal governments in the aggregate in any one year. TSA will publish a final analysis, including its response to public comments, when it publishes a final rule.

#### C. Executive Order 13132, Federalism

A rule has implications for federalism under Executive Order 13132 “Federalism” (64 FR 43255, Aug. 10, 1999), if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. TSA has analyzed this proposed rule under Executive Order 13132 and determined that it does not have implications for federalism. TSA welcomes public comments on Executive Order 13132 federalism implications.

#### D. Environmental Analysis

TSA has reviewed this rulemaking for purposes of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4347) and has determined that this action will not have a significant effect on the human environment. This action is covered by categorical exclusion number A3(b) in DHS Management Directive 023–01 (formerly Management Directive 5100.1), Environmental Planning Program,

which guides TSA compliance with NEPA.

#### E. Energy Impact Analysis

The energy impact of this rulemaking has been assessed in accordance with the Energy Policy and Conservation Act (EPCA), Public Law 94–163, as amended (42 U.S.C. 6362). TSA has determined that this rulemaking would not be a major regulatory action under the provisions of the EPCA.

#### List of Subjects

##### 49 CFR Part 1500

Air carriers, Air transportation, Aircraft, Airports, Bus transit systems, Commuter bus systems, Law enforcement officer, Maritime carriers, Over-the-Road buses, Public transportation, Rail hazardous materials receivers, Rail hazardous materials shippers, Rail transit systems, Railroad carriers, Railroad safety, Railroads, Reporting and recordkeeping requirements, Security measures, Transportation facility, Vessels.

##### 49 CFR Part 1530

Administrative law judge, Appeal, Background check, Criminal history records check, Fees, Immigration check, Terrorism check, Redress, Security measures, Security threat assessment, Waiver.

##### 49 CFR Part 1570

Commuter bus systems, Crime, Fraud, Hazardous materials transportation, Motor carriers, Over-the-Road bus safety, Over-the-Road buses, Public transportation, Public transportation safety, Rail hazardous materials receivers, Rail hazardous materials shippers, Rail transit systems, Railroad carriers, Railroad safety, Railroads, Reporting and recordkeeping requirements, Security measures, Transportation facility, Transportation Security-Sensitive Materials.

##### 49 CFR Part 1572

Crime, Explosives, Hazardous materials transportation, Motor carriers, Railroads, Reporting and recordkeeping requirements, Security measures.

##### 49 CFR Part 1580

Hazardous materials transportation, Rail hazardous materials receivers, Rail hazardous materials shippers, Railroad carriers, Railroad safety, Railroads, Reporting and recordkeeping requirements, Security measures.

##### 49 CFR Part 1582

Public transportation, Public transportation safety, Railroad carriers, Railroad safety, Railroads, Rail transit

systems, Reporting and recordkeeping requirements, Security measures.

#### 49 CFR Part 1584

Over-the-Road bus safety, Over-the-Road buses, Reporting and recordkeeping requirements, Security measures.

#### The Proposed Amendments

For the reasons set forth in the preamble, the Transportation Security Administration proposes to amend chapter XII of title 49, Code of Federal Regulations, as follows:

#### SUBCHAPTER A—ADMINISTRATIVE AND PROCEDURAL RULES

#### PART 1500—APPLICABILITY, TERMS, AND ABBREVIATIONS

■ 1. The authority citation for part 1500 continues to read as follows:

**Authority:** 49 U.S.C. 114, 5103, 40113, 44901–44907, 44913–44914, 44916–44918, 44935–44936, 44942, 46105; Pub. L. 110–53 (121 Stat. 266, Aug. 3, 2007) secs. 1408 (6 U.S.C. 1137), 1501 (6 U.S.C. 1151), 1517 (6 U.S.C. 1167), and 1534 (6 U.S.C. 1184).

■ 2. In § 1500.3, add the following definition for “Security threat assessment” in alphabetical order:

\* \* \* \* \*

*Security threat assessment (STA)* means a procedure conducted by TSA consisting of one or more checks of relevant databases and other sources of information to verify an individual’s identity and determine whether the individual is eligible for certain access to the nation’s transportation systems, or for certain privileges or credentials. An STA constitutes a security background check for purposes of § 1570.305(b) of this chapter.

\* \* \* \* \*

#### SUBCHAPTER B—SECURITY RULES FOR ALL MODES OF TRANSPORTATION

■ 3. Add part 1530 to subchapter B to read as follows:

#### PART 1530—SECURITY THREAT ASSESSMENT STANDARDS

##### Subpart A—General

Sec.

1530.1 Scope.

1530.3 Terms used in this part.

1530.5 Levels of security threat assessments.

1530.7 Duration of security threat assessment and Determination of Eligibility.

1530.9 Fraud and intentional falsification of records; knowing misrepresentation.

1530.11 Fraudulent use or manufacture; responsibilities of persons.

1530.13 Compliance, inspection, and enforcement.

**Subpart B—Individual Enrollment Requirements and Continuing Responsibilities**

- Sec.  
 1530.101 Information required for security threat assessments (STAs).  
 1530.103 Collection of biometrics.  
 1530.105 Payment of fees.  
 1530.107 Individual's continuing responsibilities.  
 1530.109 Identity verification.

**Subpart C [Reserved]****Subpart D—Fees**

- Sec.  
 1530.301 Establishing and adjusting fees.  
 1530.303 Fees for security threat assessment services.  
 1530.305 Fees for levels of security threat assessments.  
 1530.307 Fee computation for comparable security threat assessments.  
 1530.309 Processing fees for security threat assessments.

**Subpart E—Adjudication Procedures**

- Sec.  
 1530.401 Procedures for fingerprint-based criminal history records checks.  
 1530.403 Procedures for terrorism check and other analyses.  
 1530.405 Procedures for immigration checks.  
 1530.407 [Reserved]  
 1530.409 [Reserved]  
 1530.411 [Reserved]  
 1530.413 Determination of Eligibility.  
 1530.415 Preliminary Determination of Ineligibility.  
 1530.417 Preliminary Determination of Ineligibility with immediate suspension.  
 1530.419 Final Determination of Ineligibility.

**Subpart F—Standards**

- Sec.  
 1530.501 Standards.  
 1530.503 Disqualifying criminal offenses.  
 1530.505 Immigration check.  
 1530.507 Terrorism check and other analyses.  
 1530.509 Comparability of security threat assessments.

**Subpart G—Appeal and Waiver Procedures for Security Threat Assessments**

- Sec.  
 1530.601 Scope and General Requirements.  
 1530.603 [Reserved]  
 1530.605 Appeal based on criminal conviction, immigration, or mental capacity standards.  
 1530.607 Requests for waiver of criminal offenses, immigration, or mental capacity standards.  
 1530.609 Appeal of security threat assessment based on terrorism check and other analyses.  
 1530.611 Review by administrative law judge.  
 1530.613 Review by TSA Final Decision Maker.

**Authority:** 6 U.S.C. 469, 1140, 1143, 1170, and 1181; 46 U.S.C. 70105; 49 U.S.C. 114, 5103a, 40113–40114, 41718 note, 44901–

44907, 44913–44914, 44916–44918, 44932, 44935–44936, 44939, 44942, 46105, and 46111.

**PART 1530—SECURITY THREAT ASSESSMENT STANDARDS****Subpart A—General****§ 1530.1 Scope.**

(a) This part applies to the following:  
 (1) Individuals applying for a security threat assessment (STA) conducted by TSA.

(2) Persons regulated by TSA who employ individuals or use authorized representatives who work in security-sensitive positions, as security coordinators, or who require a credential, access, or authorization that requires a TSA STA.

(b) This part does not apply to STAs governed by 49 CFR part 1572.

**§ 1530.3 Terms used in this part.**

Terms used in parts 1500, 1503, 1540, 1570, and 1572 of this chapter apply in this part. In addition, the following terms are used in this part:

*Administrative law judge* means an administrative law judge appointed pursuant to the provisions of 5 U.S.C. 3105.

*Assistant Administrator* means the officer designated by the Administrator to carry out certain STA and redress functions described in this part. The Assistant Administrator may appoint a designee to assume his or her duties.

*Date of service* means—

(1) In the case of personal service, the date of personal delivery to the residential address listed on the application;

(2) In the case of mailing to the address designated on the application as the mailing address, with a certificate of service, the date shown on the certificate of service;

(3) In the case of mailing to the address designated on the application as the mailing address, without a certificate of service, 10 days from the date mailed;

(4) In the case of mailing to the address designated on the application as the mailing address, with no certificate of service or postmark, the date other evidence indicates it was sent; or

(5) The date on which an electronic transmission to the individual's email or other electronic address occurs.

*Day* means calendar day.

*Incarceration* means under the custody of a bureau of prisons and confined to a prison, jail, or institution for the criminally insane pursuant to a sentence imposed as the result of a criminal conviction or finding of not guilty by reason of insanity. Time spent

under the custody of a bureau of prisons or confined or restricted to a half-way house, treatment facility, home incarceration, or similar institution, pursuant to a sentence imposed as the result of a criminal conviction or finding of not guilty by reason of insanity, constitutes incarceration for purposes of this part.

*Individual* means the individual who has applied for an STA in accordance with the terms of part 1530. This includes an individual who previously applied for and was found to meet the standards of the STA, but who TSA later determined does not meet the STA standards.

*Mail* includes U.S. mail, or use of an express mail service.

*Party* means the individual or the agency, whether acting with or without an attorney.

*Personal delivery* includes hand-delivery or use of a contract or express messenger service, but does not include the use of U.S. mail service.

*Properly addressed* means a document that shows a residential, business, or other address submitted by a person on any document provided under this subpart; or address shown by other reasonable, available means.

*Serve* means provide a document to a party during an appeal or waiver process under this subpart by personal delivery, mail, or electronic means.

*Substantial evidence* means such relevant evidence as a reasonable person might accept as adequate to support a conclusion.

*TSA Final Decision Maker* means the Administrator, acting in the capacity of the decision maker on appeal, or any person to whom the Administrator has delegated the Administrator's decision-making authority.

**§ 1530.5 Levels of security threat assessments.**

(a) A Level 1 STA consists of a terrorism check and other analyses.

(b) A Level 2 STA consists of—  
 (1) A terrorism check and other analyses; and

(2) An immigration check to verify that the individual is a U.S. citizen, U.S. National, or falls within the permissible categories listed in section 1530.505.

(c) A Level 3 STA consists of—

(1) A terrorism check and other analyses;

(2) An immigration check to verify that the individual is a U.S. citizen, U.S. National, or falls within the permissible categories listed in section 1530.505; and

(3) A fingerprint-based criminal history records check (CHRC).

**§ 1530.7 Duration of security threat assessment and Determination of Eligibility.**

(a) Except as provided in paragraph (b) of this section, a determination of eligibility (DOE) issued to an individual, based on an STA under this part, remains valid for 5 years from the date on which TSA issued the DOE. If the DOE is based, in part, on one or more comparable checks from an earlier STA, the DOE remains valid for 5 years from the date on which the earliest comparable check was completed.

(b) A DOE expires on the earliest date—

(1) TSA serves a final determination of ineligibility (FDI) on the individual;

(2) TSA serves a preliminary determination of ineligibility with immediate revocation (PDIIR) on the individual;

(3) An individual with a Level 3 STA is indicted for, subject of a criminal complaint, convicted of, or found not guilty by reason of insanity, of any of the disqualifying crimes applicable to that individual under § 1530.503 of this part; or

(4) An individual with a Level 2 or 3 STA is no longer meets the immigration standards as described in § 1530.505 of this part.

**§ 1530.9 Fraud and intentional falsification of records; knowing misrepresentation.**

(a) No person may make, or cause to be made, any of the following:

(1) Any fraudulent or intentionally false statement in any application, statement, record, or report that is submitted, kept, made, or used in compliance with, or to show compliance with this part.

(2) Any reproduction or alteration, for fraudulent purpose, of any application, statement, record, report, security program, access medium, identification medium, biometric data (fingerprints or photograph), documentation, or certification issued pursuant to standards in this part.

(b) Any person who violates the requirements in paragraph (a) of this section is ineligible to receive the access, privilege, or credential associated with a DOE based on an STA conducted under this part.

**§ 1530.11 Fraudulent use or manufacture; responsibilities of persons.**

(a) No person may use or attempt to use, or represent or attempt to represent that he or she holds, a DOE or STA issued or conducted under this part that was issued or conducted for another person.

(b) No person may cause or attempt to cause another person to violate paragraph (a) of this section.

(c) Any person who violates the requirements of this section is ineligible to receive a DOE based on an STA conducted under this part.

**§ 1530.13 Compliance, inspection, and enforcement.**

(a) Each individual who is required to undergo an STA under this part, and their employers or entities for whom they act as authorized representatives are required to undergo STAs under this part, must allow DHS, at any time or place, to make any inspections or tests, including copying records, to determine the person's compliance with this part and part 1520 of this chapter.

(b) At the request of TSA, each person subject to this part must provide evidence of compliance with this part and part 1520 of this chapter, including copies of records.

**Subpart B—Individual's Enrollment Requirements and Continuing Responsibilities****§ 1530.101 Information required for security threat assessments (STAs).**

(a) Each individual applying for an STA under this part must provide the information and/or documents required by paragraph (b) of this section, and may provide the information specified in paragraph (c) of this section, in a form and manner authorized by TSA.

(b) The individual must provide the following information and/or documents:

(1) Legal name, including first, middle, and last; any applicable suffix; and any other names used previously.

(2)(i) Current and previous mailing address, current residential address if it differs from the current mailing address, and email address if available.

(ii) If an individual prefers to receive correspondence and notification via email instead of physical mail, the individual should so state.

(3) Date of birth.

(4) Gender.

(5) Height, weight, hair color, and eye color.

(6) City, state, and country of birth; and country of citizenship.

(7) Immigration information, and—

(i) If a naturalized citizen of the United States, the date of naturalization;

(ii) If present in the United States based on a visa, the type of visa, the visa number, and the date on which it expires; and

(iii) If a commercial driver licensed in Canada, whether the individual holds a Free and Secure Trade (FAST), Secure Electronic Network for Travelers Rapid Inspection (SENTRI), Global Entry or NEXUS card, or a Canadian passport number.

(8) If not a national or citizen of the United States, the alien registration number and/or the number assigned to the individual on the U.S. Customs and Border Protection (CBP) Arrival-Departure Record, Form I-94, if issued.

(9) The individual's daytime telephone number.

(10) The individual's current employer(s), and the employer's address, facsimile number (if available), and telephone number. If the individual's current employer is the U.S. military, also list the branch of the service. If the individual is self-employed, provide the name of the company (if any), address, telephone number, and facsimile number.

(11) Each individual must present documentary evidence in a form and manner specified by TSA that he or she meets the immigration standards, as described in § 1530.505, such as proof of U.S. citizenship or nationality if the individual claims U.S. citizenship or nationality.

(c) The individual may also provide the information requested in paragraphs (c)(1)–(c)(5) of this section:

(1) Social Security number. Providing the Social Security number is voluntary; however, failure to provide it may delay or prevent completion of the STA.

(2) Passport number, city of issuance, date of issuance, and date of expiration. This information is voluntary and may expedite the adjudication process for an individual who is a U.S. citizen born abroad.

(3) Department of State Consular Report of Birth Abroad. This information is voluntary and may expedite the adjudication process for an individual who is a U.S. citizen born abroad.

(4) Whether the individual has previously completed a comparable TSA STA, and if so, the date and program for which it was completed. This information must be provided if the individual wishes to use the comparable STA as described in § 1530.509 of this part to avoid redundant checks and reduce the STA fee.

(5) Whether the individual currently holds a Federal security clearance, and if so, the type of clearance, date, and agency for which the clearance was performed. If TSA determines that the security clearance is a comparable STA pursuant to § 1530.509 of this part, this information must be provided if the individual wishes to use the security clearance to avoid redundant checks and reduce the STA fee.

(d) The individual must certify in writing that all information provided is true, complete, and correct. The

individual must acknowledge that a false statement or material omission can be punished by fine or imprisonment or both, and may be grounds for TSA to determine that the individual is ineligible.

(e) The individual must acknowledge in writing that TSA may notify his or her employer in the case of an imminent threat, and provide limited information to reduce the risk of injury or damage to a facility.

(f) The individual must acknowledge in writing that there is a continuing obligation to report an event or condition that makes the individual ineligible.

#### § 1530.103 Collection of biometrics.

Each individual applying for an STA that includes a CHRC must submit fingerprints to TSA in a form and manner prescribed by TSA.

#### § 1530.105 Payment of fees.

(a) The individual must pay the STA fees as required in subpart D of this part when he or she submits biographic and/or biometric data. TSA will begin processing an STA application only upon receipt of all required fees.

(b) Fees must be processed in accordance with § 1530.309 of this subpart.

(c) TSA will not refund fees once paid.

#### § 1530.107 Individual's continuing responsibilities.

(a) *Reporting responsibilities.* Each individual who has successfully completed an STA and received a DOE from TSA under this part, or has applied for an STA and is awaiting a DOE, must report the occurrence of any of the events listed below to TSA within 24 hours of occurrence:

(1) Each individual who applies for, or successfully completes, an STA that includes a CHRC, must report—

(i) An indictment, conviction, or finding of not guilty by reason of insanity, of a disqualifying crime; or

(ii) Being adjudicated as lacking mental capacity, or being committed to a mental health facility.

(2) Each individual who applies for, or successfully completes an STA that includes an immigration check under § 1530.505 of this part, must report if he or she no longer meets the immigration standards as described in § 1530.503.

(b) *Contact information.* An individual who applies for an STA, or who receives a DOE from TSA under this part, must report to TSA any changes in the information provided to TSA under § 1530.101(b)(1), (2), or (9) of this subpart. This reporting obligation continues until the DOE expires.

#### § 1530.109 Identity verification.

(a) The identity of each individual applying for an STA under this part must be verified by TSA.

(b) The individual must present at least two forms of identification to verify identity. At least one form of identification must be issued by a government authority and bear a photograph of the individual.

(c) TSA must examine the identification documents the individual presents to determine whether they appear to be genuine, unexpired, and relate to the individual presenting them.

#### Subpart C [Reserved]

#### Subpart D—Fees

##### § 1530.301 Establishing and adjusting fees.

(a) *Establishing and adjusting fees.* Pursuant to 6 U.S.C. 469, TSA must collect user fees to fund the cost of an STA. These fees apply to all STAs conducted under this part. TSA determines fee amounts in accordance with Federal guidelines including Office of Management and Budget (OMB) Circular Number A-25 “User Charges”. This Federal policy provides information for determining full program costs, the amount of the fee assessed on those that benefit from a special service, and when the fee should be collected. The fee rate and necessary revisions will be calculated using the best available records of the agency, will be consistent with widely accepted accounting principles and practices, and will be calculated in accordance with the provisions of 31 U.S.C. 9701 and other applicable Federal law. TSA will publish the initial fees established under this part in a notice in the **Federal Register**. Once TSA establishes a fee, it will review the amount of the fee at least once every 2 years to determine the current cost of providing the service the fee covers. If necessary, TSA will revise the fee to cover the costs of the STA services and publish a notice in the **Federal Register** of the revised fee.

(b) *Inflation adjustment.* TSA may adjust the fees prescribed in this section for inflation annually on or after October 1, \_\_\_\_\_. TSA will announce any inflation adjustments by publishing a notice in the **Federal Register**. The adjustment will be a composite of the Federal civilian pay raise assumption and non-pay inflation factor for that fiscal year issued by the OMB for agency use in implementing OMB Circular A-76, weighted by the pay and non-pay proportions of total funding for that fiscal year. If Congress enacts a different

Federal civilian pay raise percentage than the percentage issued by OMB for Circular A-76, TSA may adjust the fees to reflect the enacted amount. The required fee will be the amount prescribed pursuant to this subpart, adjusted to account for the latest inflation adjustment.

##### § 1530.303 Fees for security threat assessment services.

(a) *Mandatory fees.* This section describes the fees for each service TSA provides in an STA. TSA must receive the appropriate fee(s) listed below before it can conduct the STA. If it becomes necessary to adjust these fees in the future, TSA may publish a notice in the **Federal Register** announcing the revised fees.

(b) *Processing fees—(1) Processing fee.* This fee covers the cost to establish, operate, and maintain physical enrollment centers, equipment, personnel, and electronic systems to facilitate the collection of an individual's biographic and biometric information, verify identity, collect and process fees, and support these services. This fee is \$43.00 to \$65.00.

(2) *Reduced processing fee.* This fee covers the cost to establish, operate, and maintain an online enrollment platform, including equipment, software, personnel, and electronic systems to capture an individual's biographic and biometric information, verify identity, collect and process fees, and support these services. This fee is \$24.00 to \$36.00.

(c) *Terrorism check and other analyses fee.* This fee covers the cost to establish, operate, maintain, and access information sources TSA uses to conduct the terrorism check and other analyses, adjudicate the information received, and process appeal requests. This fee is \$6.00 to \$10.00.

(d) *Immigration check fee.* This fee covers the cost to establish, operate, maintain, and access the appropriate immigration records, adjudicate the results, and process appeal requests. This fee is \$2.00 to \$4.00.

(e) *Criminal history records check fee.* This fee covers the personnel, equipment, and system costs to establish, operate, and maintain a system to process applicant fingerprint submissions and the cost to adjudicate the criminal history records associated with the individual to determine whether the records show a disqualifying criminal offense or open disposition, and to process appeal and waiver requests.

(1) The CHRC fee for the initial enrollment in-person at an enrollment center is \$17.00 to \$25.00.

(2) The fee for renewing a CHRC online is \$8.00 to \$12.00.

**§ 1530.305 Fees by levels of security threat assessments.**

(a) *Level 1 STA.* An individual applying for a Level 1 STA must pay TSA's fees for the following components:

(1) The processing or reduced processing fee.

(2) The terrorism check and other analyses fee.

(b) *Level 2 STA.* An individual applying for a Level 2 STA must pay TSA's fees for the following components:

(1) The processing or reduced processing fee.

(2) The terrorism check and other analyses fee.

(3) The immigration check fee.

(c) *Level 3 STA.* An individual applying for a Level 3 STA must pay TSA's fees for the following components:

(1) The processing or reduced processing fee.

(2) The terrorism check and other analyses fee.

(3) The immigration check fee.

(4) The initial CHRC fee for in-person enrollment at an enrollment center or a renewal fee for online CHRC renewal.

**§ 1530.307 Fee computation for comparable security threat assessments.**

(a) An individual who successfully completed an STA at an earlier date may apply to rely on one or more of the previous unexpired checks when applying for a new STA.

(b) If one or more of the previous unexpired checks are comparable to checks required in the new STA, TSA will not conduct a new check for that portion of the new STA. TSA computes the fee for the new STA based on the checks actually performed in connection with the new application.

**§ 1530.309 Processing fees for security threat assessments.**

(a) All fees for an STA must be processed via a method approved by TSA and in accordance with U.S. Treasury guidelines.

(b) TSA will not begin an STA until it has received the required fees.

(c) TSA will not issue any fee refunds.

**Subpart E—Adjudication Procedures**

**§ 1530.401 Procedures for fingerprint-based criminal history records checks.**

(a) TSA will transmit fingerprints to the Federal Bureau of Investigation's (FBI) Criminal Justice Information Services Division (CJIS) in accordance with the FBI CJIS fingerprint submission

standards. TSA may also transmit fingerprints to the DHS IDENT system.

(b) TSA will receive and adjudicate the results of the check from the FBI CJIS and IDENT in accordance with §§ 1530.501 and 1530.503 of this part, including any results TSA receives through the FBI CJIS' Rap Back service.

**§ 1530.403 Procedures for terrorism checks and other analyses.**

(a) To conduct a terrorism check and other analyses, TSA completes the following procedures:

(1) Reviews the individual's information required for enrollment in subpart B of this part.

(2) Searches domestic and international government databases described in § 1530.507 of this part, as applicable.

(3) Adjudicates the results of the check, in accordance with §§ 1530.501, 1530.505, and 1530.507 of this part, as applicable.

(b) If the searches listed in this section indicate that an individual has an outstanding warrant or is subject to a removal order under the immigration laws of the United States, TSA sends the individual's information to the appropriate law enforcement or immigration agency.

**§ 1530.405 Procedures for immigration checks.**

To conduct the immigration check, TSA will check relevant government databases and may perform other checks, including whether the U.S. Citizenship and Immigration Services (USCIS) alien registration number, CBP Form I-94 Arrival/Departure Record number, or other pertinent identifying document number is valid and associated with the individual.

**§ 1530.407 [Reserved]**

**§ 1530.409 [Reserved]**

**§ 1530.411 [Reserved]**

**§ 1530.413 Determination of Eligibility.**

TSA will issue a DOE to the individual and the TSA-regulated person employing or contracting with the individual, or other person, as appropriate, if TSA determines that the individual meets the STA standards in § 1530.501 of this part.

**§ 1530.415 Preliminary Determination of Ineligibility.**

TSA will serve a preliminary determination of ineligibility (PDI) on the individual if TSA determines he or she may not meet, or may no longer meet, the STA standards in § 1530.501 of this part. The PDI will include:

(a) *Statement.* A statement that TSA has determined that the individual may not meet, or may no longer meet, the STA standards in § 1530.501 of this part, or may need to provide additional information for TSA to issue a DOE;

(b) *Basis.* A statement that explains TSA's basis for the preliminary determination;

(c) *Appeal and waiver information.* (1) Information about how the individual may appeal or apply for a waiver of the determination, as described in § 1530.605, § 1530.607 or § 1530.609 of this part, as applicable, including Determination of Arrest Status and correction of records, as provided in paragraphs (d) and (e) of this section, and

(2) A statement that if the individual does not appeal or apply for a waiver of TSA's determination, or request an extension of time to file an appeal or waiver request, within 60 days of service of the PDI, the PDI will automatically convert to an FDI. The statement will also explain the circumstances under which the individual may request an extension of time beyond 60 days of service of the PDI.

(d) *Determination of arrest status.* (1) When a CHRC discloses an arrest for a disqualifying crime listed in § 1530.503 of this part without indicating a disposition, TSA will notify the individual and provide instructions on how the individual must clear the disposition, in accordance with paragraph (d)(2) of this section. Upon request, TSA will provide the individual with a copy of the FBI record.

(2) The individual must provide TSA with written proof that the arrest did not result in a conviction for the disqualifying criminal offense within 60 days after the service date of the PDI. If the individual does not send written proof in that time, or a request for an extension of time, TSA will notify the individual that he or she is disqualified. TSA will also so notify the individual's employer or entity for whom the individual is an authorized representative.

(e) *Corrective action by the individual.* When a CHRC discloses an arrest for a disqualifying crime listed in § 1530.503 of this part, the individual may contact the local jurisdiction responsible for the information and the FBI to complete or correct the information contained in his or her record. The individual must send a copy of the revised FBI record, or a certified true copy of the information from the appropriate court within 60 days after the service date of the PDI.

**§ 1530.417 Preliminary determination of ineligibility with immediate revocation.**

(a) TSA will serve a PDIIR on the individual and, as applicable, the TSA-regulated person who employs or contracts with the individual, if TSA determines that the individual may not meet, or may no longer meet, the STA standards in § 1530.501 of this part, and that immediate revocation of the associated credential, access, or authorization is warranted.

(b) Following the immediate revocation, TSA will process the PDIIR in accordance with the procedures for a PDI in § 1530.415 of this part.

(c) If TSA does not issue an FDI, TSA will reinstate the individual's credential, access, or authorization and notify the individual and, as applicable, the employer or person who contracts with the individual, of the reinstatement.

**§ 1530.419 Final Determination of Ineligibility.**

(a) If an individual does not appeal or request a waiver of the PDI or PDIIR in accordance with § 1530.415, or request an extension of time, the preliminary determination will automatically convert to an FDI. The individual's credential, access, or authorization will be denied or revoked.

(b) If an individual appeals or requests a waiver of the PDI or PDIIR and TSA denies the appeal or waiver request, TSA will serve an FDI on the individual. The individual's credential, access, or authorization will be denied or revoked.

**Subpart F—Standards****§ 1530.501 Standards.**

(a) *Determination of Eligibility.* TSA will issue a DOE following an STA under this part to an individual only if the results of the STA do not indicate that the individual poses or may pose a threat to transportation security or national security, or of terrorism. For TSA to reach such a conclusion, all of the following conditions in this paragraph (a) must be met:

(1) TSA is able to verify the individual's identity.

(2) The results of the terrorism check and other analyses as described in § 1530.507 of this part do not indicate that the individual poses or may pose a threat to transportation security or national security, or of terrorism.

(3) If the individual is applying for or renewing a Level 2 or Level 3 STA, he or she is a U.S. citizen, U.S. National, or is in a permissible category listed in § 1530.505 of this part.

(4) If the individual is applying for or renewing a Level 3 STA, he or she qualifies under § 1530.503 of this part.

(b) *Reapplication or re-enrollment.* An individual who fails to complete an STA successfully may reapply or re-enroll for an STA when the conditions that make him or her ineligible no longer exist.

**§ 1530.503 Disqualifying criminal offenses.**

(a) *Scope.* This section applies to an individual applying for or renewing a Level 3 STA as defined in § 1530.5 of this part. It does not apply to an individual applying for or renewing a Level 1 or Level 2 STA as defined in § 1530.5 of this part.

(1) *Permanent disqualifying criminal offenses.* An individual has a permanent disqualifying offense if convicted, or found not guilty by reason of insanity, in a civilian or military, domestic or foreign jurisdiction of any of the following felonies:

(A) Espionage or conspiracy to commit espionage.

(B) Sedition, or conspiracy to commit sedition.

(C) Treason, or conspiracy to commit treason.

(D) A Federal crime of terrorism as defined in 18 U.S.C. 2332b(g), or comparable State law, or conspiracy to commit such crime.

(E) A crime involving a transportation security incident. A transportation security incident is a security incident resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption in a particular area, as defined in 46 U.S.C. 70101. The term "economic disruption" does not include a work stoppage or other employee-related action not related to terrorism and resulting from an employer-employee dispute.

(F) Improper transportation of a hazardous material under 49 U.S.C. 5124, or a State law that is comparable.

(G) Unlawful possession, use, sale, distribution, manufacture, purchase, receipt, transfer, shipping, transporting, import, export, storage of, or dealing in an explosive or explosive device. An explosive or explosive device includes, but is not limited to, an explosive or explosive material as defined in 18 U.S.C. 232(5), 841(c) through 841(f), and 844(j); and a destructive device, as defined in 18 U.S.C. 921(a)(4) and 26 U.S.C. 5845(f).

(H) Murder.

(I) Making any threat, or maliciously conveying false information knowing the same to be false, concerning the deliverance, placement, or detonation of an explosive or other lethal device in or

against a place of public use, a state or government facility, a public transportation system, or an infrastructure facility.

(J) Violations of the Racketeer Influenced and Corrupt Organizations Act, 18 U.S.C. 1961, *et seq.*, or a comparable State law, where one of the predicate acts found by a jury or admitted by the defendant, consists of one of the crimes listed in paragraph (a)(1) of this section.

(K) Attempt to commit the crimes in paragraphs (a)(1)(A) through (D) of this section.

(L) Conspiracy or attempt to commit the crimes in paragraphs (a)(1)(E) through (a)(1)(J) of this section.

(2) *Look-back period for interim disqualifying criminal offenses.* The felonies listed in paragraph (a)(3) of this section are disqualifying, if either—

(A) The individual was convicted, or found not guilty by reason of insanity, of the crime in a civilian or military U.S. domestic or foreign jurisdiction within 7 years of the date of the application; or

(B) The individual was incarcerated for that crime and released from incarceration within 5 years of the date of the application.

(3) *Interim disqualifying offenses.* The interim disqualifying felonies are:

(A) Unlawful possession, use, sale, manufacture, purchase, distribution, receipt, transfer, shipping, transporting, delivery, import, export of, or dealing in a firearm or other weapon. A firearm or other weapon includes, but is not limited to, firearms as defined in 18 U.S.C. 921(a)(3) or 26 U.S.C. 5845(a), or items contained on the U.S. Munitions Import List at 27 CFR part 447.21.

(B) Extortion.

(C) Dishonesty, fraud, or misrepresentation, including identity fraud and money laundering where the money laundering is related to a crime described in paragraphs (a)(1) or (a)(3) of this section. Welfare fraud and passing bad checks do not constitute dishonesty, fraud, or misrepresentation for purposes of this paragraph.

(D) Bribery.

(E) Smuggling.

(F) Immigration violations.

(G) Distribution of, possession with intent to distribute, or importation of a controlled substance.

(H) Arson.

(I) Kidnapping or hostage taking.

(J) Rape or aggravated sexual abuse.

(K) Assault with intent to kill.

(L) Robbery.

(M) Entry by false pretenses to any real property, vessel, or aircraft of the U.S. or secure area of any airport or seaport as described in 18 U.S.C. 1036 or 49 U.S.C. 46312, or a comparable State law.



(N) Violations of the Racketeer Influenced and Corrupt Organizations Act, 18 U.S.C. 1961, *et seq.*, or a comparable State law, other than the violations listed in paragraph (a)(1)(f) of this section.

(O) Manslaughter, as described in 18 U.S.C. 1112, or a comparable state law.

(P) Conspiracy or attempt to commit the crimes in this paragraph (a)(3).

(b) [Reserved]

(c) *Under want, warrant, indictment, or criminal complaint.* An individual who is wanted, the subject of a warrant, under indictment, or the subject of a criminal complaint, in any civilian or military jurisdiction, for a felony listed in paragraph (a) is disqualified until the want or warrant is released or the indictment or complaint is dismissed.

(d) *Mental incapacity.* An individual who has been adjudicated as lacking mental capacity or involuntarily committed to a mental health facility, is disqualified until the adjudication is withdrawn or the individual is released from the mental health facility.

#### **§ 1530.505 Immigration check.**

(a) An individual applying for an STA under this Part must be U.S. citizen, U.S. National, or who is—

- (1) Lawfully admitted for permanent residence;
- (2) A refugee admitted under 8 U.S.C. 1157;
- (3) Granted asylum under 8 U.S.C. 1158;
- (4) In lawful nonimmigrant status;
- (5) Paroled into the United States under 8 U.S.C. 1182(d)(5); or
- (6) Is otherwise authorized to be employed in the United States.

(b) To determine whether an applicant falls within the categories listed in paragraph (a) of this section, TSA will check relevant Federal databases and may perform other checks, including the validity of the applicant's alien registration number, Social Security number, or I-94 Arrival-Departure Form number.

#### **§ 1530.507 Terrorism check and other analyses.**

(a) An individual applying for or holding a Level 1, 2, or 3 STA must undergo a terrorism check and other analysis to determine whether the individual poses or may pose a threat to transportation security or national security, or of terrorism. TSA conducts this check based on a search of the following—

- (1) Interpol and other international databases, as appropriate.
- (2) Terrorist watchlists and related databases.
- (3) Any other databases or sources relevant to determining whether an

individual poses or may pose a threat to transportation security or national security, or of terrorism, and that confirm an individual's identity.

(b) TSA may also determine that the individual may pose a threat to transportation security or national security, or of terrorism, and is ineligible, if the check conducted under this part reveals extensive foreign or domestic criminal convictions, a conviction for a serious crime not listed in § 1530.503 of this part, or a period of foreign or domestic incarceration that exceeds 365 consecutive days.

#### **§ 1530.509 Comparability of security threat assessments.**

(a) *Comparability of checks.* TSA may determine that a previous check, such as a CHRC, or a terrorism check and other analyses, conducted as part of an earlier STA is comparable to the same check needed for a later STA, following an examination of the factors set out in paragraph (d) of this section, and if the following conditions are met:

- (1) The first check has not expired.
- (2) The first check is part of a DOE that is not expired, revoked, or suspended.
- (3) The first check was adjudicated under standards that are comparable to the standards for the check in the new STA applied for under this part.

(b) *Comparability of entire STA.* TSA may accept a valid, unexpired STA, background check, or investigation conducted by TSA or another Federal governmental agency as satisfying an STA requirement under this chapter if TSA determines, based on an examination of the factors set out in paragraph (d) of this section, that the STA, background check, or other investigation satisfies all of the requirements of the level of STA applied for under this part.

(c) *Duration of DOE.* A DOE issued on the basis of an earlier, comparable check, STA, background check, or investigation is computed from the date of the earliest check included in the STA, background check, or investigation. For example, if the later STA relies on an immigration check conducted 2 years before as part of an earlier STA, the validity of the second DOE will be 3 years, rather than 5 years, as otherwise provided in § 1530.7 of this part.

(d) *Comparability determination considerations.* Except as provided in paragraphs (g) through (i) of this section (which set forth comparability determinations that TSA has already made), in making a comparability determination under paragraph (a) or (b) of this section, TSA will consider—

(1) The minimum standards used for the check, STA, background check, or investigation;

(2) The frequency and duration of the check, STA, background check, or investigation;

(3) The date of the most recent check, STA, background check, or investigation;

(4) As applicable, whether the STA, background check, or investigation includes biometric identification and a biometric credential; and

(5) Other factors TSA considers appropriate to determining comparability.

(e) [Reserved]

(f) *Information required to use a comparable assessment.* If asserting completion of a comparable check, STA, background check, or investigation under paragraph (a) or (b) of this section, an individual must—

(1) Present the credential (or similar documentation) that corresponds to successful completion of the comparable assessment to TSA;

(2) Notify TSA when the credential that corresponds to a successful completion of the comparable assessment expires or is suspended or revoked for any reason; and

(3) Complete the enrollment and pay associated fees, as required in this part.

(g) *Comparable to Level 1 STA.* The following successful STAs are comparable to a Level 1 STA:

- (1) A Level 2 or a Level 3 STA.
- (2) An STA completed under the FAST, NEXUS, Global Entry, and SENTRI programs administered by U.S. Customs and Border Protection (CBP).

(3) An STA conducted by TSA under part 1572 of this chapter for a hazardous materials endorsement (HME) or transportation worker identification credential (TWIC).

(4) An STA conducted by TSA under part 1540 of this chapter for certain individuals engaged in cargo operations.

(5) An STA conducted by TSA for the TSA PreCheck® Application Program.

(h) *Comparable to Level 2 STA.* The following successful STAs are comparable to a Level 2 STA:

- (1) A Level 3 STA.
- (2) An STA completed under the FAST, NEXUS, Global Entry, and SENTRI programs administered by CBP.

(3) An STA conducted by TSA under part 1572 of this chapter for an HME or TWIC.

(4) An STA conducted by TSA for the TSA PreCheck® Application Program.

(i) *Comparable to Level 3 STA.* The following successful STAs are comparable to a Level 3 STA:

- (1) An STA completed under the FAST, NEXUS, Global Entry, and SENTRI programs administered by CBP.



(2) An STA conducted by TSA under part 1572 of this chapter for an HME or TWIC.

(3) An STA conducted by TSA for the TSA PreCheck® Application Program.

### Subpart G—Appeal and Waiver Procedures for Security Threat Assessments

#### § 1530.601 Scope and General Requirements.

(a) *Appeals.* This subpart applies to individuals appealing a PDI or a PDIIR as part of an STA as described in §§ 1530.415 and 1530.417 of this part.

(b) *Waivers.* This subpart applies to individuals who are authorized to apply for a waiver of certain STA standards by the statute, regulation, security program, or other authority that requires him or her to undergo an STA.

(c) *Nondisclosure of certain information.* In connection with the procedures in this subpart, TSA does not disclose to the individual and/or respondent classified information, as defined in section 1(a) of the Classified Information Procedures Act (18 U.S.C. App.), as amended, and will not disclose any other information or material not warranting disclosure or protected from disclosure under law.

(d) *Representation by counsel.* For any proceedings under this subpart, an individual or respondent may choose to be represented by counsel at his or her expense.

(e) *Extension of time.* TSA may grant an individual an extension of the time limits described in this subpart for good cause shown. An individual's request for an extension of time must be in writing and received by TSA within a reasonable time prior to the date to be extended. If the request for an extension of time is not received by TSA before the due date to be extended, an individual may request an extension after the expiration of a due date by sending a written request describing why the failure to file within the time limits may be excusable.

(f) *Exhaustion of administrative remedies.* An individual must exhaust the administrative remedies set forth in this subpart before seeking judicial review.

#### § 1530.603 [Reserved]

#### § 1530.605 Appeal based on criminal, immigration, or mental capacity standards.

(a) *Scope.* This section applies to individuals appealing a PDI or a PDIIR based on one or more of the following:

(1) TSA's determination that an individual is ineligible because he or she has a disqualifying criminal offense

described in § 1530.503 or criminal history in § 1530.507(b) of this part.

(2) TSA's determination that an individual is ineligible because he or she does not meet the immigration standards, as described in § 1530.505 of this part.

(3) TSA's determination that an individual is ineligible because he or she has been adjudicated as lacking mental capacity or committed to a mental health facility.

(b) *Grounds for appeal.* An individual may appeal a PDI or a PDIIR if the individual is asserting that he or she meets the standards for the STA for which he or she is applying, and

(1) The basis for the denial is factually incorrect; or

(2) TSA has not applied the standards described in this part 1530 correctly.

(c) *Initiating an appeal.* (1) An individual who has received a PDI or PDIIR may initiate an appeal by submitting a written request for material from TSA in accordance with paragraph (d) of this section, or a written reply to TSA in accordance with paragraph (e) of this section, within 60 days of the date of service of the PDI. An individual preserves the right to appeal a PDI or PDIIR, if he or she requests an extension of time in accordance with § 1530.601(e) of this part and the request is granted.

(2) If the individual does not initiate an appeal, submit a written request for material, or request an extension of time within 60 days of the date of service of the PDI or PDIIR, the PDI or PDIIR becomes an FDI.

(d) *Request for material.* (1) Within 60 days of the date of service of the PDI or PDIIR, the individual may serve TSA with a written request for copies of the material upon which the PDI or PDIIR was based.

(2) Within 60 days of the date of service of the request for material, TSA will serve the individual with copies of the releasable material on which the PDI or PDIIR was based.

(3) Within 60 days of the date of service of the individual's request for material, TSA may request additional information or documents from the individual that TSA believes are necessary to make a final determination.

(e) *Reply.* (1) Within 60 days of the date of service of the PDI or PDIIR, the individual may serve on TSA a written reply to the PDI or PDIIR.

(i) If the individual requested material under paragraph (d) of this section, the individual may serve on TSA a written reply to the PDI or PDIIR within 60 days of the date of service of TSA's response to the individual's request for material.

(ii) The reply must include the rationale and information upon which

the individual disputes TSA's PDI or PDIIR.

(2) Within 60 days of the date of service of the individual's written reply, TSA may request from the individual additional information or documents that TSA believes are necessary to make a final determination on the individual's appeal.

(3) TSA will consider only material that is relevant to whether the individual meets the applicable standards for the STA for which the individual is applying.

(f) *Correction of records.* If the PDI or PDIIR was based on a record that the individual believes is erroneous, the individual may correct the record by—

(1) Contacting the jurisdiction or entity responsible for the information and attempting to correct or complete information contained in his or her record; and

(2) Providing TSA the revised record, or a certified true copy of the information from the appropriate entity, before TSA determines whether the individual meets the standards for the STA.

(g) *Final determination.* Within 60 days of the date of service of the individual's reply to the PDI or PDIIR, or a longer period of time for good cause, TSA will serve either an FDI or a withdrawal of the PDI/PDIIR, as provided in paragraph (g)(1) or (g)(2) of this section.

(1) *Final Determination of Ineligibility.* If the Assistant Administrator concludes that an individual does not meet the standards described in § 1530.501 of this part, TSA will serve an FDI upon the individual. Where applicable, TSA will serve the FDI on the individual's employer or entity for whom the individual is an authorized representative. The FDI will include a statement that the Assistant Administrator has reviewed the PDI or PDIIR, the individual's reply and accompanying information, and any other available material or information, and has determined that the individual does not meet the STA standards for which she or he has applied.

(2) *Withdrawal of PDI/PDIIR.* If the Assistant Administrator concludes that the individual meets the STA standards, TSA will serve a withdrawal of the PDI/PDIIR upon the individual, and where applicable, the individual's employer, operator, or other person with security responsibilities for the individual under this chapter.

(h) *Further review.* For purposes of judicial review, the FDI issued under this section constitutes a final agency order that the individual does not meet

the STA standards, in accordance with 49 U.S.C. 46110.

**§ 1530.607 Requests for waiver of criminal offense or mental capacity standards.**

(a) *Scope.* This section applies to individuals who are authorized to apply for a waiver of STA standards by the statute, regulation, security program, or other authority that requires him or her to undergo an STA, and—

(1) Who have a disqualifying criminal offense described in § 1530.503 of this part;

(2) Who have been determined to be ineligible due to a prior adjudication of lacking mental capacity or prior commitment to a mental health facility; or

(3) Who have been determined to be ineligible under § 1530.507(b) of this part.

(b) *Grounds for waiver.* TSA may issue a waiver of the standards described in paragraph (a) of this section if, based on a review of information described in paragraph (c) of this section, TSA determines that, despite a disqualifying criminal offense or mental capacity issue, the evidence does not indicate that the individual poses or may pose a threat to transportation security or national security, or of terrorism, and the individual is otherwise eligible.

(c) *Initiating waiver.* (1) To initiate a waiver, the individual must:

(i) Have already submitted a complete application for the required STA, and paid all applicable fees.

(ii) Submit a written waiver to TSA. To be considered timely submitted, such written waiver request—

(A) May be received *as early as* the same date that the individual submitted the application and fee, and

(B) May be received *no later than* 60 days after final disposition of an appeal undertaken consistent with in § 1530.605 of this subpart.

(C) An individual preserves the right submit a waiver request, if he or she requests an extension of time in accordance with § 1530.601(e) of this part and the request is granted.

(2) In determining whether to grant a waiver, TSA will consider the following factors:

(i) The circumstances of the disqualifying offense.

(ii) Restitution made by the individual.

(iii) Any Federal or State mitigation remedies.

(iv) Court records or official medical release documents indicating that the individual no longer lacks mental capacity.

(v) Term of incarceration, time elapsed since release from

incarceration/jail, and information concerning any criminal activity or evidence of rehabilitation that occurred since release from incarceration/jail.

(vi) Other factors that indicate the individual should or should not be granted a waiver.

(d) *Grant or Denial of Waiver.* (1) Within 60 days of the date of service of the individual's request for a waiver, the Assistant Administrator will serve on the individual a written decision granting or denying the waiver.

(2) If the Assistant Administrator denies the waiver, the individual may seek review by an administrative law judge (ALJ) in accordance with § 1530.611 of this part. A denial of a waiver under this section does not constitute a final agency order as provided in 49 U.S.C. 46110.

**§ 1530.609 Appeal of security threat assessment based on terrorism check and other analyses.**

(a) *Scope.* This section applies to an individual appealing a PDI or PDIIR based on a failure to meet the standards in § 1530.507(a) of this part.

(b) *Grounds for appeal.* An individual may appeal a PDI or PDIIR if the individual is asserting that he or she meets the standards for the STA for which he or she is applying.

(c) *Procedures for Appeal.* The appeal procedures set forth in §§ 1530.605(c) through (f) of this subpart apply to this section.

(d) *Final determination.* Within 60 days of the date of service of the individual's reply to the PDI/PDIIR, or a longer period of time for good cause, TSA will serve either an FDI or a withdrawal of the PDI/PDIIR as provided in paragraph (d)(1) or (d)(2) of this section.

(1) *Final Determination of Ineligibility.* If the Assistant Administrator concludes that an individual does not meet the standards described in § 1530.501 of this part, TSA will serve an FDI upon the individual. Where applicable, TSA will serve the FDI on the individual's employer or entity for whom the individual is an authorized representative. The FDI will include a statement that the Assistant Administrator has reviewed the PDI/PDIIR, the individual's reply and accompanying information, and any other available material or information, and has determined that the individual does not meet the STA standards for which she or he has applied.

(2) *Withdrawal of PDI/PDIIR.* If the Assistant Administrator concludes that the individual meets the STA standards, TSA will serve a withdrawal of the PDI/

PDIIR upon the individual, and where applicable, the individual's employer, operator, or other person with security responsibilities for the individual under this chapter.

(e) *Further review.* If the Assistant Administrator denies the appeal, the individual may seek review by an ALJ in accordance with § 1530.611 of this subpart. A final determination issued under this section does not constitute a final agency order as provided in 49 U.S.C. 46110.

**§ 1530.611 Review by administrative law judge.**

(a) *Scope.* This section applies to the following:

(1) An individual who seeks review of a decision by TSA denying a waiver request under § 1530.607 of this part.

(2) An individual who seeks review of a decision by TSA denying an appeal under § 1530.609 of this part.

(b) *Request for review by administrative law judge.* An individual must request review by an ALJ of TSA's decision to deny a waiver under § 1530.607 or an appeal under § 1530.609 of this part, by serving the request no later than 30 days from the date of service TSA's final determination. If the individual fails to seek review within 30 days of the date of service, the application is closed and the individual is not eligible.

(1) The request for review must clearly state the issue(s) to be considered by the ALJ, and include the following documents in support of the request:

(i) A copy of the individual's request for waiver or appeal, including all material the individual provided to TSA as part of the request for waiver under § 1530.607 of this part or appeal under § 1530.609 of this part; and

(ii) A copy of TSA's denial of the waiver request or appeal.

(2) The request for review may not include material, evidence, or information that was not presented to TSA in the original waiver request or appeal. The ALJ may consider only material, evidence, or information that was presented to TSA in the waiver request or appeal.

(3) If the individual has new or additional material, evidence or information that was not presented to TSA as part of the original waiver request or appeal, the individual must file a new waiver request under § 1530.607 of this part or appeal under § 1530.609 of this part and the pending request for ALJ review will be dismissed.

(4) The individual may include in the request for review a request for an in-person hearing before the ALJ.

(5) The individual must file the request for ALJ review with the ALJ Docketing Center, U.S. Coast Guard, 40 S. Gay Street, Room 412, Baltimore, MD 21202-4022, ATTENTION: Hearing Docket Clerk.

(c) *Extension of time.* (1) The ALJ may grant an extension of the time limits described in this section for good cause shown.

(2) Requests for an extension of time must be in writing and received by the ALJ within a reasonable time before the date to be extended.

(3) An individual may request an extension of time after the expiration of a due date by sending a written request describing why the failure to file within the time limits should be excused.

(4) This paragraph (c) does not apply to time limits set by the ALJ during the ALJ's review of the case.

(d) *Duties of the administrative law judge.* The ALJ who conducts the review described in this section must possess the appropriate security clearance necessary to review classified or otherwise protected information and evidence. The ALJ may—

(1) Receive information and evidence presented to TSA in the request for waiver under § 1530.607 of this part or appeal under § 1530.609 of this part;

(2) Determine whether to grant a request for an in-person hearing, by considering if there are genuine issues of fact regarding—

(i) The credibility of evidence or information submitted in the individual's request for a waiver or appeal; and

(ii) Whether TSA's determination on a request for a waiver or appeal under this subpart was made in accordance with this chapter.

(3) Give notice of and hold conferences and hearings;

(4) Administer oaths and affirmations;

(5) Examine witnesses;

(6) Regulate the course of the hearing including granting extensions of time limits; and

(7) Dispose of procedural motions and requests, and issue a decision that applies the substantial evidence on the record standard of proof for conclusions of law.

(e) *Hearing.* If the ALJ grants a request for a hearing, except for good cause shown, it will begin within 60 days of the date of receipt of the request for hearing. The hearing is a limited discovery proceeding and is conducted as follows:

(1) If applicable and upon request, TSA will provide to the individual

requesting a review an unclassified summary of classified evidence upon which TSA's denial of the waiver or appeal was based, to the extent possible given national security concerns. Preparation of an unclassified summary constitutes good cause for the purposes of extending the time limits described in this section.

(i) TSA will not disclose to the individual, or the individual's counsel, classified information, as defined in E.O. 12968, section 1.1(d), as amended.

(ii) TSA will not disclose any other information or material that does not warrant disclosure or is otherwise protected from disclosure by law or regulation.

(2) The individual may present the case by oral testimony; documentary, demonstrative, or rebuttal evidence; and conduct cross-examination, as permitted by the ALJ. Oral testimony, and documentary, demonstrative, and rebuttal evidence is limited to the evidence or information that the individual presented to TSA in the request for a waiver or during the appeal. The Federal Rules of Evidence may serve as guidance, but are not binding and shall not preclude presentation of evidence considered by TSA in making its decision to deny a waiver or appeal, or evidence offered by the individual to TSA in support of their waiver or appeal.

(3) The ALJ will review any classified information on an *ex parte, in camera* basis, and may consider such information in rendering a decision if the information appears to be material and relevant.

(4) The ALJ will assess whether TSA's determination is supported by substantial evidence on the record.

(5) The parties may submit proposed findings of fact and conclusions of law.

(6) If the individual fails to appear, the ALJ may issue a default judgment.

(7) A verbatim transcript will be made of the hearing, including any witnesses testifying *ex parte, in camera*, and will be provided upon request at the expense of the requesting party. In cases in which classified or otherwise protected evidence is received, the transcript will be redacted for classified or otherwise protected information.

(8) The hearing will be held at TSA's Headquarters building or, on request of a party, at an alternate location selected by the ALJ for good cause shown. The ALJ may hold a hearing via teleconference or video, as appropriate.

(f) *Decision of the administrative law judge.* (1) The record is closed when the certified transcript and all documents and material have been submitted for the record.

(2) The ALJ issues an unclassified written decision to the individual no later than 60 days from the close of the record, and may extend the time needed to issue the decision where appropriate. The ALJ serves the decision on the parties. The ALJ may issue a classified decision to TSA.

(3) The ALJ's decision may be appealed by either party to the TSA Final Decision Maker in accordance with § 1530.613 of this subpart. In no event does an ALJ decision constitute a final agency order as provided in 49 U.S.C. 46110.

(i) Concerning a review of a waiver denial, if the ALJ upholds TSA's denial of the waiver request and the individual does not appeal that to the TSA Final Decision Maker, TSA will issue a final agency order denying a waiver to the individual.

(ii) Concerning a review of a waiver denial, if the ALJ reverses TSA's denial of the waiver request and TSA does not appeal that to the TSA Final Decision Maker, TSA will issue a final agency order granting a waiver to the individual and if applicable, send a DOE to the individual's employer, operator, or other person with security responsibilities for the individual under this chapter.

(iii) Concerning a review of an appeal denial, if the ALJ upholds TSA's denial of the appeal and the individual does not appeal that to the TSA Final Decision Maker, TSA will issue a final order of ineligibility to the individual.

(iv) Concerning a review of an appeal denial, if the ALJ reverses TSA's denial of the appeal and TSA does not appeal that to the TSA Final Decision Maker, TSA will re-adjudicate the STA consistent with the ALJ's decision, issue a withdrawal of the final determination to the individual, and if applicable, to the individual's employer, operator, or other person with security responsibilities for the individual under this chapter.

#### **§ 1530.613 Review by TSA Final Decision Maker.**

(a) *Request for review.* Either party may request that the TSA Final Decision Maker review the ALJ's decision by serving a written request no later than 30 days after the date of service of the ALJ's decision. Requests for review served after 30 days of the date of service of the ALJ's decision will be denied, except where good cause is shown. The request must be—

(1) In writing;

(2) Served on the other party; and

(3) Address only whether the ALJ decision is supported by substantial evidence on the record.

(b) *Response to request for review.* The other party may file a response to the request for review no later than 30 days after receipt of the request.

(c) *Record for review.* The ALJ will provide the TSA Final Decision Maker with a certified transcript of the hearing and all unclassified documents and material submitted for the record. TSA will provide any classified material previously submitted.

(d) *Decision of the TSA Final Decision Maker.* No later than 60 days after receipt of the request, or if the other party files a response, 30 days after receipt of the response, or such longer period as may be appropriate, the TSA Final Decision Maker issues an unclassified decision and serves the decision on the parties. The TSA Final Decision Maker may issue a classified opinion to TSA, if applicable. The decision of the TSA Final Decision Maker is a final agency order in accordance with 49 U.S.C. 46110.

(1) In the case of a review of a waiver denial under § 1530.607 of this part, if the TSA Final Decision Maker upholds the denial of the individual's request for waiver, TSA issues a final agency order denying a waiver request to the individual.

(2) In the case of a review of a waiver denial under § 1530.607 of this part, if the TSA Final Decision Maker reverses the denial of the individual's request for waiver, TSA will issue a final agency order granting a waiver to the individual, and if applicable, send a DOE to the TSA-regulated person employing or contracting with the individual, or other person, as appropriate.

(3) In the case of a review of an appeal under § 1530.609 of this part, if the TSA Final Decision Maker determines that the individual does not meet the STA standards in this part, TSA will issue an FDI to the individual.

(4) In the case of a review of an appeal under § 1530.609 of this part, if the TSA Final Decision Maker determines that the individual meets the STA standards, TSA will issue a withdrawal of the FDI to the individual, and if applicable, to the individual's employer or entity for whom the individual is an authorized representative.

(e) *Judicial review.* The individual may seek judicial review of a final decision of the TSA Final Decision Maker in the U.S. Court of Appeals of the District of Columbia Circuit, in accordance with 49 U.S.C. 46110.

## SUBCHAPTER D—MARITIME AND LAND TRANSPORTATION SECURITY

### PART 1570—GENERAL RULES

■ 4. The authority citation for part 1570 is revised to read as follows:

**Authority:** 46 U.S.C. 70105; 49 U.S.C. 114, 5103a, 40113, and 46105; Pub. L. 108–90 (117 Stat. 1156; Oct. 1, 2003), sec. 520 (6 U.S.C. 469), as amended by Pub. L. 110–329 (122 Stat. 3689; Sept. 30, 2008) sec. 543 (6 U.S.C. 469); Pub. L. 110–53 (121 Stat. 266; Aug. 3, 2007) secs. 1402 (6 U.S.C. 1131), 1405 (6 U.S.C. 1134), 1408 (6 U.S.C. 1137), 1411 (6 U.S.C. 1140); 1413 (6 U.S.C. 1142), 1414 (6 U.S.C. 1143), 1501 (6 U.S.C. 1151), 1512 (6 U.S.C. 1162), 1517 (6 U.S.C. 1167), 1520, 1522 (6 U.S.C. 1170), 1531 (6 U.S.C. 1181), and 1534 (6 U.S.C. 1184).

■ 5. Add § 1570.307 to part 1570 to read as follows:

\* \* \* \* \*

#### § 1570.307 Owner/operators and individuals subject to security threat assessment requirements.

(a) *Owner/operators.* The specific STA requirements for owner/operators in maritime and land transportation are set forth in parts 1530 (Security Threat Assessments), 1572 (Credentialing and Security Threat Assessments for TWIC and HME), 1580 (Freight Rail Transportation Security), 1582 (Public Transportation and Passenger Rail Transportation Security), and 1584 (Highway and Motor Carriers) of this chapter.

(b) *Individuals.* The specific STA requirements concerning individuals in maritime and land transportation, including security coordinators and security-sensitive employees, are set forth in parts 1530 (Security Threat Assessments), 1572 (Transportation Worker Identification Credential and Hazardous Materials Endorsement Programs), 1580 (Freight Rail), 1582 (Public Transportation and Passenger Rail), and 1584 (Highway and Motor Carriers) of this chapter.

■ 6. Revise the heading of part 1572 to read as follows:

### PART 1572—CREDENTIALING AND SECURITY THREAT ASSESSMENTS FOR THE HAZARDOUS MATERIALS ENDORSEMENT AND TRANSPORTATION WORKER IDENTIFICATION CREDENTIAL PROGRAMS

### PART 1580—RAIL TRANSPORTATION SECURITY

■ 7. The authority citation for part 1580 is revised to read as follows:

**Authority:** 49 U.S.C. 114; Pub. L. 110–53 (121 Stat. 266, Aug. 3, 2007) secs. 1501 (6

U.S.C. 1151), 1512 (6 U.S.C. 1162), 1517 (6 U.S.C. 1167), 1520, and 1522 (6 U.S.C. 1170).

■ 8. Revise § 1580.3 introductory text to read as follows:

#### § 1580.3 Terms used in this part.

In addition to the terms in §§ 1500.3, 1500.5, and 1503.103 of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, the following terms apply to this part:

\* \* \* \* \*

■ 9. Add subpart D to part 1580 to read as follows:

#### Subpart D—Security Threat Assessment Requirements for Owner/Operators and Individuals

Sec.

1580.301 Owner/operator requirements.  
1580.303 Requirements for individuals.  
1580.305 TSA enrollment required.  
1580.307 Effective dates.

#### § 1580.301 Owner/operator requirements.

(a) *Security coordinator security threat assessment.* (1) An owner/operator required to designate and use a primary and at least one alternate security coordinator under § 1570.201 of this chapter must not designate or permit an individual to serve as a primary or alternate security coordinator without confirmation from TSA that the individual has successfully completed a Level 3 STA and holds a current Determination of Eligibility (DOE) as described in part 1530 of this chapter.

(2) The owner/operator must retain records, in a form and manner authorized by TSA, that documents compliance with the requirement in paragraph (a)(1) of this section from the date that the owner/operator designates an individual as a primary or alternative security coordinator and until 180 days after the owner/operated has terminated such designation, and make those records available to TSA upon request.

(b) *Security-sensitive employee STA.* (1) An owner/operator described in § 1580.101 of this part must not authorize or permit an individual to serve as a security-sensitive employee without confirmation from TSA that the individual has successfully completed a Level 2 STA and holds a current DOE as described in part 1530 of this chapter.

(2) The owner/operator must retain records, in a form and manner authorized by TSA, that documents compliance with the requirement in paragraph (b)(1) of this section for 180 days after the individual has left employment, and make those records available to TSA upon request.

(c) *Continuing responsibilities.* (1) An owner/operator must remove an

individual from a position as a primary or alternate security coordinator, or as a security-sensitive employee, if notified by TSA that the individual no longer meets the standards described in § 1530.501 of this chapter for such position.

(2) If an owner/operator becomes aware of information indicating that an individual serving as a primary or alternate security coordinator or security-sensitive employee is or may not be eligible for the position, the owner/operator must immediately notify TSA.

(3) An owner/operator may reassign an individual to be a security coordinator or security-sensitive employee if notified by TSA that the individual is eligible.

#### **§ 1580.303 Requirements for individuals.**

(a) *Security coordinator.* An individual must not perform the function of a primary or alternate security coordinator, unless he or she successfully completes a Level 3 STA and holds a current DOE, as described in part 1530 of this chapter. The criminal history records check (CHRC) conducted as part of the STA must be adjudicated against the standards and list of disqualifying criminal offenses in § 1530.503 of this chapter.

(b) *Security-sensitive employee.* An individual must not serve as a security-sensitive employee, unless he or she successfully completes a Level 2 STA and holds a current DOE as described in part 1530 of this chapter.

#### **§ 1580.305 TSA enrollment required.**

(a) Each individual required to undergo an STA under this subpart must use the TSA enrollment system and procedures as described in part 1530 of this chapter, unless otherwise authorized by TSA.

(b) An owner/operator must use the TSA enrollment system and procedures under part 1530 of this chapter for its employees who are required to undergo an STA, unless otherwise authorized by TSA.

#### **§ 1580.307 Effective dates.**

(a) The effective date for §§ 1580.301(a) and 1580.303(a) of this part is [INSERT DATE 6 MONTHS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

(b) The effective date for §§ 1580.301(b) and 1580.303(b) of this part is [INSERT DATE 12 MONTHS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

(c) The effective date for § 1580.305 of this part is [INSERT DATE 30 DAYS

AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

### **PART 1582—PUBLIC TRANSPORTATION AND PASSENGER RAILROAD SECURITY**

■ 10. The authority citation for part 1582 continues to read as follows:

**Authority:** 49 U.S.C. 114; Pub. L. 110–53 (121 Stat. 266, Aug. 3, 2007) secs. 1402 (6 U.S.C. 1131), 1405 (6 U.S.C. 1134), and 1408 (6 U.S.C. 1137).

#### **Subpart A—General**

■ 11. Revise § 1582.3 introductory text to read as follows:

##### **§ 1582.3 Terms used in this part.**

In addition to the terms in §§ 1500.3, 1500.5, and 1503.103, of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, the following terms apply to this part:

\* \* \* \* \*

■ 12. Add subpart C to part 1582 to read as follows:

#### **Subpart C—Security Threat Assessment Requirements for Owner/Operators and Individuals**

##### **Sec.**

1582.201 Owner/operator requirements.  
1582.203 Requirements for individuals.  
1582.205 TSA enrollment required.  
1582.207 Effective dates.

##### **§ 1582.201 Owner/operator requirements.**

(a) *Security coordinator STA.* (1) An owner/operator required to designate and use a primary and alternate security coordinator under § 1570.201 of this chapter, must not designate or permit an individual to serve as a primary or alternate security coordinator without confirmation from TSA that the individual has successfully completed a Level 3 security threat assessment (STA) and holds a current determination of eligibility (DOE) as described in part 1530 of this chapter.

(2) The owner/operator must retain records, in a form and manner authorized by TSA, that documents compliance with the requirement in paragraph (a)(1) of this section from the date that the owner/operator designates an individual as a primary or alternative security coordinator and until 180 days after the owner/operator has terminated such designation, and make those records available to TSA upon request.

(b) *Security-sensitive employee security threat assessment.* (1) An owner/operator, described in (a) of this section, must not permit an individual to serve as a security-sensitive employee without confirmation from TSA that the

individual has successfully completed a Level 2 STA and holds a current DOE as described in part 1530 of this chapter.

(2) The owner/operator must retain records, in a form and manner authorized by TSA, that documents compliance with the requirement in paragraph (b)(1) of this section for 180 days after the individual has left employment, and make those records available to TSA upon request.

(c) *Continuing responsibilities.* (1) An owner/operator must remove an employee from a position as a primary or alternate security coordinator or as a security-sensitive employee, if notified by TSA that the individual no longer meets the standards described in § 1530.501 of this chapter for those positions.

(2) If an owner/operator becomes aware of information indicating that an individual serving as a primary or alternate security coordinator or security-sensitive employee is or may not be eligible for the position, the owner/operator must immediately notify TSA.

(3) An owner/operator may reassign an individual to be a security coordinator or security-sensitive employee if notified by TSA that the individual is eligible.

##### **§ 1582.203 Requirements for individuals.**

(a) *Security Coordinator.* An individual must not perform the function of a primary or alternate security coordinator, unless he or she successfully completes a Level 3 STA and holds a current DOE as described in part 1530 of this chapter. The criminal history records check (CHRC) conducted as part of the STA must be adjudicated against the standards and list of disqualifying criminal offenses in § 1530.503 of this part.

(b) *Security-sensitive employee.* An individual must not serve as a security-sensitive employee, unless he or she successfully completes a Level 2 STA and holds a current DOE as described in part 1530 of this chapter.

##### **§ 1582.205 TSA enrollment required.**

(a) Each individual required to undergo an STA under this subpart, must use the TSA enrollment system and procedures as described in part 1530 of this chapter, unless otherwise authorized by TSA.

(b) An owner/operator must use the TSA enrollment system and procedures under part 1530 of this chapter for its employees who are required to undergo an STA, unless otherwise authorized by TSA.

**§ 1582.207 Effective dates.**

(a) The effective date for §§ 1582.201(a) and 1582.203(a) of this part is [INSERT DATE 6 MONTHS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

(b) The effective date for §§ 1582.201(b) and 1582.203(b) of this part is [INSERT DATE 12 MONTHS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

(c) The effective date for § 1582.205 of this part is [INSERT DATE 30 DAYS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

**PART 1584—HIGHWAY AND MOTOR CARRIERS**

■ 13. The authority citation for part 1584 is revised to read as follows:

**Authority:** 49 U.S.C. 114; Pub. L. 110–53 (121 Stat. 266, Aug. 3, 2007) secs. 1501 (6 U.S.C. 1151), 1531 (6 U.S.C. 1181), and 1534 (6 U.S.C. 1184).

**Subpart A—General**

■ 14. Revise § 1584.3 introductory text to read as follows:

**§ 1584.3 Terms used in this part.**

In addition to the terms in §§ 1500.3, 1500.5, and 1503.3 of subchapter A, § 1530.3 of subchapter B, and § 1570.3 of subchapter D of this chapter, the following terms apply to this part:

\* \* \* \* \*

■ 15. Add subpart C to part 1584 to read as follows:

**Subpart C—Security Threat Assessment Requirements for Owner/Operators and Individuals****Sec.**

1584.201 Owner/operator requirements.

1584.203 Requirements for individuals.

1584.205 TSA enrollment required.

1584.207 Effective date.

**§ 1584.201 Owner/operator requirements.**

(a) *Security coordinator security threat assessment.* (1) An owner/operator, required to designate and use a primary and at least one alternate security coordinator under § 1570.201 of this chapter, must not designate or permit an individual to serve as a primary or alternate security coordinator without confirmation from TSA that the individual has successfully completed a Level 3 security threat assessment (STA) and holds a current Determination of Eligibility (DOE) as described in part 1530 of this chapter.

(2) The owner/operator must retain records, in a form and manner authorized by TSA, that documents compliance with the requirement in paragraph (a)(1) of this part from the date that the owner/operator designates an individual as a primary or alternative security coordinator and until 180 days after the owner/operated has terminated such designation, and make those records available to TSA upon request.

(b) *Continuing responsibilities.* (1) An owner/operator must remove an employee from a position as a primary or alternate security coordinator, if notified by TSA that he or she no longer meets the standards described in § 1530.501 of this chapter for those positions.

(2) If an owner/operator becomes aware of information indicating that an individual serving as a primary or alternate security coordinator is, or may not, be eligible for position, the owner/operator must immediately notify TSA.

(3) An owner/operator may reassign an individual to be a security coordinator, if notified by TSA that the individual is eligible.

**§ 1584.203 Requirements for individuals.**

An individual must not perform the function of a primary or alternate security coordinator unless he or she successfully completes a Level 3 STA and holds a current DOE as described in part 1530 of this chapter. The criminal history records check (CHRC) conducted as part of the STA must be adjudicated against the standards and list of disqualifying criminal offenses in § 1530.503 of this chapter.

**§ 1584.205 TSA enrollment required.**

(a) Each individual required to undergo an STA under this subpart must use the TSA enrollment system and procedures as described in part 1530 of this chapter, unless otherwise authorized by TSA.

(b) An owner/operator must use the TSA enrollment system and procedures, as described in part 1530 of this chapter, for its employees who are required to undergo an STA, unless otherwise authorized by TSA.

**§ 1584.207 Effective date.**

(a) The effective date for § 1584.201 and § 1584.203 of this part is [INSERT DATE 6 MONTHS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

(b) The effective date for § 1584.205 of this part is [INSERT DATE 30 DAYS AFTER DATE OF FINAL RULE PUBLICATION IN THE **Federal Register**].

Dated: May 4, 2023.

**David P. Pekoske,**  
*Administrator.*

[FR Doc. 2023–10131 Filed 5–22–23; 8:45 am]

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